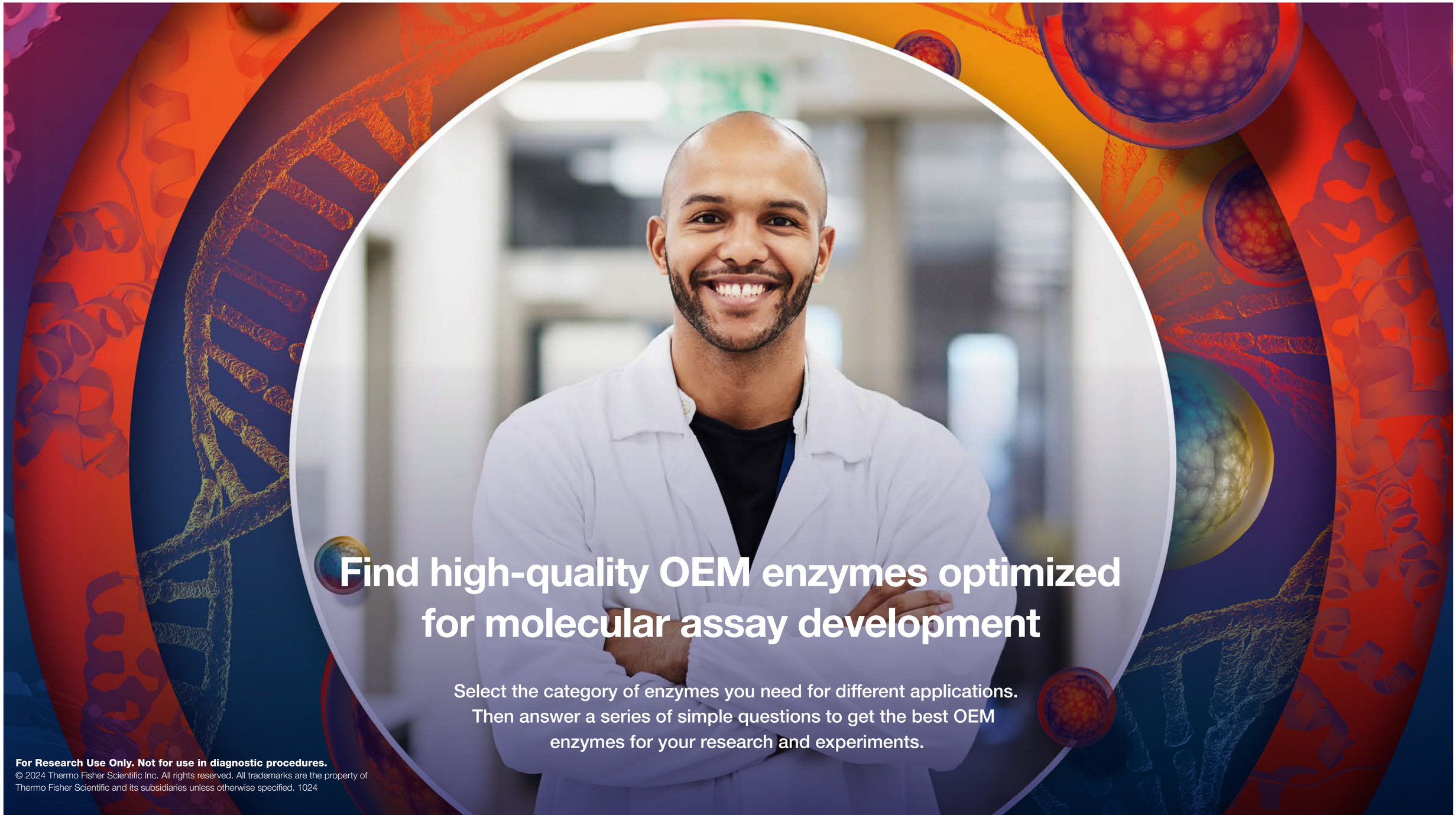

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PCR DNA polymerases

What is your application?

- ◯ Real-time PCR
- ◯ High-fidelity PCR (e.g., sequencing)
- ◯ End-point PCR

PCR DNA polymerases

What is your application?

- (●) Real-time PCR
- ( ) High-fidelity PCR (e.g., sequencing)
- ( ) End-point PCR

Need hot start PCR?

- ( ) Yes
- ( ) No

PCR DNA polymerases

What is your application? ● Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ○ End-point PCR

Need hot start PCR? ○ Yes ● No

	Enzymes		
	Ampli*Taq*™ DNA Polymerase	**Ampli*Taq*™ 360 DNA Polymerase**	***Taq* DNA Polymerase, recombinant**
Brand	Applied Biosystems™	Applied Biosystems™	Thermo Scientific™
TaqMan™ probe compatible	Yes	Yes	Yes
Proofreading activity (3'-5' exonuclease)	No	No	No
Lyo-ready/glycerol free	On request	On request	On request
Inhibitor tolerance	•	•	•
Extention rate	• •	• •	• •
Benchtop stability	No	No	No
GC-rich target amplification	Standard	★ High	Standard
Fidelity vs Taq Pol	Standard (1x)	Standard (1x)	Standard (1x)
	View product	**View product**	**View product**

★ Uses GC enhancer

PCR DNA polymerases

What is your application? ● Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ○ End-point PCR

Need hot start PCR? ● Yes ○ No

Need lyo-ready/glycerol free? ○ Yes ○ No

	Enzymes				
	Platinum™ II *Taq* Hot-Start DNA polymerase	**Platinum™ *Taq* DNA Polymerase, DNA-free**	**Platinum™ *Taq* DNA Polymerase**	**AmpliTaq Gold™ 360 DNA Polymerase**	**AmpliTaq Gold™ DNA Polymerase**
Brand	Invitrogen™	Invitrogen™	Invitrogen™	Applied Biosystems™	Applied Biosystems™
TaqMan™ probe compatible	Yes	Yes	Yes	Yes	Yes
Proofreading activity (3'-5' exonuclease)	No	No	No	No	No
Lyo-ready/glycerol free	Yes	On request	Yes	On request	Yes
Inhibitor tolerance	●●●	●	●	●	●
Extention rate	***	**	**	**	**
Benchtop stability	Yes	Yes	Yes	Yes	Yes
GC-rich target amplification	★ High	Standard	★ High	★ High	Standard
Fidelity vs Taq Pol	Standard (1x)	Standard (1x)	Standard (1x)	Standard (1x)	Standard (1x)
	View product	**View product**	**View product**	**View product**	**View product**

★ Uses GC enhancer

PCR DNA polymerases

What is your application? ● Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ○ End-point PCR

Need hot start PCR? ● Yes ○ No

Need lyo-ready/glycerol free? ● Yes ○ No

	Enzymes		
	Platinum™ II *Taq* Hot-Start DNA Polymerase	**Platinum™ *Taq* DNA Polymerase**	**AmpliTaq Gold™ DNA Polymerase**
Brand	Invitrogen™	Invitrogen™	Applied Biosystems™
TaqMan™ probe compatible	Yes	Yes	Yes
Proofreading activity (3'-5' exonuclease)	No	No	No
Lyo-ready/glycerol free	Yes	Yes	Yes
Inhibitor tolerance	●●●	●	●
Extention rate	***	**	**
Benchtop stability	Yes	Yes	Yes
GC-rich target amplification	★ High	★ High	Standard
Fidelity vs Taq Pol	Standard (1x)	Standard (1x)	Standard (1x)
	View product	**View product**	**View product**

★ Uses GC enhancer

PCR DNA polymerases

What is your application? ● Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ○ End-point PCR

Need hot start PCR? ● Yes ○ No

Need lyo-ready/glycerol free? ○ Yes ● No

	Enzymes	
Enzymes	**Platinum™ *Taq* DNA Polymerase, DNA-free**	**Ampli*Taq* Gold™ 360 DNA Polymerase**
Brand	Invitrogen™	Applied Biosystems™
TaqMan™ probe compatible	Yes	Yes
Proofreading activity (3'-5' exonuclease)	No	No
Lyo-ready/glycerol free	On request	On request
Inhibitor tolerance	•	•
Extention rate	**	**
Benchtop stability	Yes	Yes
GC-rich target amplification	Standard	High
Fidelity vs Taq Pol	Standard (1x)	Standard (1x)
	View product	**View product**

PCR DNA polymerases

What is your application? ○ Real-time PCR ● High-fidelity PCR (e.g., sequencing) ○ End-point PCR

Relative fidelity compared to Standard *Taq* Polymerase ○ Low ○ Medium ○ High

	Enzymes							
	Platinum™ SuperFi II DNA Polymerase	**Platinum™ SuperFi™ DNA Polymerase**	**Phusion™ Plus DNA Polymerase**	**Phusion™ Hot start II DNA Polymerase**	**Phusion™ High-Fidelity DNA Polymerase**	**Phusion™ U Hot start DNA Polymerase**	**Platinum™ *Taq* DNA Polymerase, High Fidelity**	**AccuPrime™ *Taq* DNA Polymerase, High Fidelity**
Brand	Invitrogen™	Invitrogen™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Invitrogen™	Invitrogen™
Applications	End-point PCR	End-point PCR	End-point PCR	End-point PCR	End-point PCR	End-point PCR	End-point PCR	End-point PCR
Hot start	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
TaqMan™ probe compatible	No	No	No	No	No	No	No	No
Proofreading activity (3'-5' exonuclease)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lyo-ready/ glycerol free	On request	Yes	On request	Yes	On request	On request	On request	On request
Inhibitor tolerance	●●●	●●●	●●●	●●	●●	●●	●	●
Extention rate	●●●	●●●	●●●	●●●	●●●	●●●	●●	●●
Benchtop stability	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
GC-rich target amplification	High	High	High	High	High	High	Standard	Standard
Fidelity vs Taq Pol	High (300x)	High (300x)	Medium (100x)	Medium (52x)	Medium (52x)	Low (25x)	Low (6x)	Low (9x)
	View product	**View product**	**View product**	**View product**	**View product**	**View product**	**View product**	**View product**

PCR DNA polymerases

What is your application?

○ Real-time PCR ● High-fidelity PCR (e.g., sequencing) ○ End-point PCR

Relative fidelity compared to Standard *Taq* Polymerase

● Low ○ Medium ○ High

	Enzymes		
	Platinum™ *Taq* DNA Polymerase, High Fidelity	**Phusion™ U Hot start DNA Polymerase**	**AccuPrime™ *Taq* DNA Polymerase, High Fidelity**
Brand	Invitrogen™	Thermo Scientific™	Invitrogen™
Hot start	Yes	Yes	Yes
TaqMan™ probe compatible	No	No	No
Proofreading activity (3'-5' exonuclease)	Yes	Yes	Yes
Lyo-ready/glycerol free	On request	On request	On request
Inhibitor tolerance	•	••	•
Extention rate	Standard > 30-60 sec/kb	Fast < 10-30 sec/kb	Standard > 30-60 sec/kb
Benchtop stability	Yes	Yes	Yes
GC-rich target amplification	Standard < 65% GC	High > 65% GC	Standard < 65% GC
Fidelity vs Taq Pol	Low (6x)	Low (25x)	Low (9x)
	View product	**View product**	**View product**

PCR DNA polymerases

What is your application?

○ Real-time PCR ● High-fidelity PCR (e.g., sequencing) ○ End-point PCR

Relative fidelity compared to Standard *Taq* Polymerase

○ Low ● Medium ○ High

	Enzymes		
	Phusion™ Plus DNA Polymerase	**Phusion™ High-Fidelity DNA Polymerase**	**Phusion™ Hot start II DNA Polymerase**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Hot start	Yes	No	Yes
TaqMan™ probe compatible	No	No	No
Proofreading activity (3'-5' exonuclease)	Yes	Yes	Yes
Lyo-ready/glycerol free	On request	On request	Yes
Inhibitor tolerance	•••	••	••
Extention rate	Fast < 10-30 sec/kb	Fast < 10-30 sec/kb	Fast < 10-30 sec/kb
Benchtop stability	Yes	No	Yes
GC-rich target amplification	High > 65% GC	High > 65% GC	High > 65% GC
Fidelity vs Taq Pol	Medium (100x)	Medium (52x)	Medium (52x)
	View product	**View product**	**View product**

PCR DNA polymerases

What is your application? ○ Real-time PCR ● High-fidelity PCR (e.g., sequencing) ○ End-point PCR

Relative fidelity compared to Standard *Taq* Polymerase ○ Low ○ Medium ● High

	Enzymes	
	Platinum™ SuperFi II DNA Polymerase	**Platinum™ SuperFi™ DNA Polymerase**
Brand	Invitrogen™	Invitrogen™
Hot start	Yes	Yes
TaqMan™ probe compatible	No	No
Proofreading activity (3'-5' exonuclease)	Yes	Yes
Lyo-ready/glycerol free	On request	Yes
Inhibitor tolerance	●●●	●●●
Extention rate	Fast < 10-30 sec/kb	Fast < 10-30 sec/kb
Benchtop stability	Yes	Yes
GC-rich target amplification	High > 65% GC	High > 65% GC
Fidelity vs Taq Pol	High (300x)	High (300x)
	View product	**View product**

PCR DNA polymerases

What is your application?

- ○ Real-time PCR
- ○ High-fidelity PCR (e.g., sequencing)
- ● End-point PCR

Need Hot-Start PCR?

- ○ Yes
- ○ No

PCR DNA polymerases

What is your application? ○ Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ● End-point PCR

Need Hot-Start PCR? ○ Yes ● No

	Enzymes				
	DreamTaq DNA Polymerase	**AmpliTaq™ DNA Polymerase**	**AmpliTaq™ 360 DNA Polymerase**	***Taq* DNA Polymerase, recombinant**	**Phusion™ High-Fidelity DNA Polymerase**
Brand	Thermo Scientific™	Applied Biosystems™	Applied Biosystems™	Thermo Scientific™	Thermo Scientific™
TaqMan™ probe compatible	Yes	Yes	Yes	Yes	No
Proofreading activity (3'-5' exonuclease)	No	No	No	No	Yes
Lyo-ready/glycerol free	On request	On request	On request	On request	On request
Inhibitor tolerance	•	•	•	•	••
Extention rate	••	••	••	••	•••
Benchtop stability	No	No	No	No	No
GC-rich target amplification	Standard	Standard	High	Standard	High
Fidelity vs Taq Pol	Standard (1x)	Standard (1x)	Standard (1x)	Standard (1x)	Medium (52x)
	View product	**View product**	**View product**	**View product**	**View product**

PCR DNA polymerases

What is your application?	○ Real-time PCR	○ High-fidelity PCR (e.g., sequencing)	● End-point PCR
Need Hot-Start PCR?	● Yes	○ No	
Need high fidelity PCR?	○ Yes	○ No	

PCR DNA polymerases

What is your application? ○ Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ● End-point PCR

Need Hot-Start PCR? ● Yes ○ No

Need high fidelity PCR? ● Yes ○ No

Working with 65+% GC-rich targets? ○ Yes ○ No

	Enzymes						
	Platinum™ SuperFi II DNA Polymerase	**Platinum™ SuperFi™ DNA Polymerase**	**Phusion™ Plus DNA Polymerase**	**Phusion™ Hot start II DNA Polymerase**	**Phusion™ U Hot start DNA Polymerase**	**Platinum™ *Taq* DNA Polymerase, High Fidelity**	**AccuPrime™ *Taq* DNA Polymerase, High Fidelity**
Brand	Invitrogen™	Invitrogen™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Invitrogen™	Invitrogen™
TaqMan™ probe compatible	No	No	No	No	No	No	No
Proofreading activity (3'-5' exonuclease)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lyo-ready/glycerol free	On request	Yes	On request	Yes	On request	On request	On request
Inhibitor tolerance	•••	•••	•••	••	••	•	•
Extention rate	•••	•••	•••	•••	•••	••	••
Benchtop stability	Yes	Yes	Yes	Yes	Yes	Yes	Yes
GC-rich target amplification	High	High	High	High	High	Standard	Standard
Fidelity vs Taq Pol	High (300x)	High (300x)	Medium (100x)	Medium (52x)	Low (25x)	Low (6x)	Low (9x)
	View product	**View product**	**View product**	**View product**	**View product**	**View product**	**View product**

PCR DNA polymerases

What is your application? ○ Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ● End-point PCR

Need Hot-Start PCR? ● Yes ○ No

Need high fidelity PCR? ● Yes ○ No

Working with 65+% GC-rich targets? ● Yes ○ No

	Enzymes				
	Platinum™ SuperFi II DNA Polymerase	**Platinum™ SuperFi™ DNA Polymerase**	**Phusion™ Plus DNA Polymerase**	**Phusion™ Hot start II DNA Polymerase**	**Phusion™ U Hot start DNA Polymerase**
Brand	Invitrogen™	Invitrogen™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
TaqMan™ probe compatible	No	No	No	No	No
Proofreading activity (3'-5' exonuclease)	Yes	Yes	Yes	Yes	Yes
Lyo-ready/glycerol free	On request	Yes	On request	Yes	On request
Inhibitor tolerance	●●●	●●●	●●●	●●	●●
Extention rate	●●●	●●●	●●●	●●●	●●●
Benchtop stability	Yes	Yes	Yes	Yes	Yes
GC-rich target amplification	High	High	High	High	High
Fidelity vs Taq Pol	High (300x)	High (300x)	Medium (100x)	Medium (52x)	Low (25x)
	View product	**View product**	**View product**	**View product**	**View product**

PCR DNA polymerases

What is your application? ○ Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ● End-point PCR

Need Hot-Start PCR? ● Yes ○ No

Need high fidelity PCR? ● Yes ○ No

Working with 65+% GC-rich targets? ○ Yes ● No

	Enzymes	
	Platinum™ *Taq* DNA Polymerase, High Fidelity	**AccuPrime™ *Taq* DNA Polymerase, High fidelity**
Brand	Invitrogen™	Invitrogen™
TaqMan™ probe compatible	No	No
Proofreading activity (3'-5' exonuclease)	Yes	Yes
Lyo-ready/glycerol free	On request	On request
Inhibitor tolerance	•	•
Extention rate	••	••
Benchtop stability	Yes	Yes
GC-rich target amplification	Standard	Standard
Fidelity vs Taq Pol	Low (6x)	Low (9x)
	View product	**View product**

PCR DNA polymerases

What is your application? ○ Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ● End-point PCR

Need Hot-Start PCR? ● Yes ○ No

Need high fidelity PCR? ○ Yes ● No

Working with 65+% GC-rich targets? ○ Yes ○ No

	Enzymes						
	Platinum™ II *Taq* Hot-Start DNA polymerase	**Platinum™ *Taq* DNA Polymerase, DNA-free**	**Platinum™ *Taq* DNA Polymerase**	**Ampli*Taq* Gold™ 360 DNA Polymerase**	**Ampli*Taq* Gold™ DNA Polymerase**	**Dream*Taq*™ Hot start DNA Polymerase**	**Phire Hot start II DNA Polymerase**
Brand	Invitrogen™	Invitrogen™	Invitrogen™	Applied Biosystems™	Applied Biosystems™	Thermo Scientific™	Invitrogen™
TaqMan™ probe compatible	Yes	Yes	Yes	Yes	Yes	Yes	No
Proofreading activity (3'-5' exonuclease)	No	No	No	No	No	No	Yes
Lyo-ready/glycerol free	Yes	On request	Yes	On request	Yes	On request	On request
Inhibitor tolerance	***	*	*	*	*	*	**
Extention rate	***	**	**	**	**	**	***
Benchtop stability	Yes	Yes	Yes	Yes	Yes	Yes	Yes
GC-rich target amplification	High	Standard	High	High	Standard	Standard	Standard
Fidelity vs Taq Pol	Standard (1x)	Standard (1x)	Standard (1x)	Standard (1x)	Standard (1x)	Standard (1x)	Low (2x)
	View product	**View product**	**View product**	**View product**	**View product**	**View product**	**View product**

PCR DNA polymerases

What is your application? ○ Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ● End-point PCR

Need Hot-Start PCR? ● Yes ○ No

Need high fidelity PCR? ○ Yes ● No

Working with 65+% GC-rich targets? ● Yes ○ No

	Enzymes		
	Platinum™ II *Taq* Hot-Start DNA polymerase	**Platinum™ *Taq* DNA Polymerase**	**Ampli*Taq* Gold™ 360 DNA Polymerase**
Brand	Invitrogen™	Invitrogen™	Applied Biosystems™
TaqMan™ probe compatible	Yes	Yes	Yes
Proofreading activity (3'-5' exonuclease)	No	No	No
Lyo-ready/glycerol free	Yes	Yes	On request
Inhibitor tolerance	***	*	*
Extention rate	***	**	**
Benchtop stability	Yes	Yes	Yes
GC-rich target amplification	High	High	High
Fidelity vs Taq Pol	Standard (1x)	Standard (1x)	Standard (1x)
	View product	**View product**	**View product**

PCR DNA polymerases

What is your application? ○ Real-time PCR ○ High-fidelity PCR (e.g., sequencing) ● End-point PCR

Need Hot-Start PCR? ● Yes ○ No

Need high fidelity PCR? ○ Yes ● No

Working with 65+% GC-rich targets? ○ Yes ● No

	Enzymes			
	Platinum™ *Taq* DNA Polymerase, DNA-free	**Ampli*Taq* Gold™ DNA Polymerase**	**Dream*Taq*™ Hot start DNA Polymerase**	**Phire Hot start II DNA Polymerase**
Brand	Invitrogen™	Applied Biosystems™	Thermo Scientific™	Invitrogen™
TaqMan™ probe compatible	Yes	Yes	Yes	No
Proofreading activity (3'-5' exonuclease)	No	No	No	Yes
Lyo-ready/glycerol free	On request	Yes	On request	Yes
Inhibitor tolerance	*	*	*	**
Extention rate	**	**	**	***
Benchtop stability	Yes	Yes	Yes	Yes
GC-rich target amplification	Standard	Standard	Standard	Standard
Fidelity vs Taq Pol	Standard (1x)	Standard (1x)	Standard (1x)	Low (2x)
	View product	**View product**	**View product**	**View product**

Reverse transcriptases

What is your RT-PCR / RT-qPCR application?

○ 1-step ○ 2-step

Reverse transcriptases

What is your RT-PCR / RT-qPCR application?

- (●) 1-step
- ( ) 2-step

Inhibitor tolerance?

- ( ) Low
- ( ) Medium
- ( ) High

Reverse transcriptases

What is your RT-PCR / RT-qPCR application? ● 1-step ○ 2-step

Inhibitor tolerance? ● Low ○ Medium ○ High

	Enzymes	
	M-MLV Reverse Transcriptase	**RevertAid Reverse Transciptase**
Brands	Invitrogen™	Thermo Scientific™
Lyo-ready/glycerol free	Yes	Yes
Sensitivity	Low	Low
Inhibitor resistance	Low	Low
Reaction speed	Low	Low
Optimal reaction temp	37°–42°C	37°–42°C
Trancript length	•	•
GC-rich target amplification	Standard	Standard
RNase H activity	Yes	Yes
Template switch	No	No
	View product	**View product**

Reverse transcriptases

What is your RT-PCR / RT-qPCR application? ● 1-step ○ 2-step

Inhibitor tolerance? ○ Low ● Medium ○ High

	Enzymes	
	SuperScript™ III Reverse Transcriptase	**SuperScript™ II Reverse Transcriptase**
Brands	Invitrogen™	Invitrogen™
Lyo-ready/glycerol free	Yes	On request
Sensitivity	Medium	Medium
Inhibitor resistance	Medium	Medium
Reaction speed	Medium	Medium
Optimal reaction temp	50°C	50°C
Trancript length	••	••
GC-rich target amplification	High	High
RNase H activity	No	No
Template switch	No	Yes
	View product	**View product**

Reverse transcriptases

What is your RT-PCR / RT-qPCR application? ● 1-step ○ 2-step

Inhibitor tolerance? ○ Low ○ Medium ● High

	Enzymes
	Lyo-ready Super-Script™ III Flash Reverse Transcriptase
Brands	Invitrogen™
Lyo-ready/glycerol free	Yes
Sensitivity	High
Inhibitor resistance	High
Reaction speed	High
Optimal reaction temp	60°–70°C
Trancript length	••
GC-rich target amplification	High
RNase H activity	No
Template switch	No
	View product

Reverse transcriptases

What is your RT-PCR / RT-qPCR application?

○ 1-step ● 2-step

Inhibitor tolerance?

○ Low ○ Medium ○ High

Reverse transcriptases

What is your RT-PCR / RT-qPCR application? ○ 1-step ● 2-step

Inhibitor tolerance? ● Low ○ Medium ○ High

	Enzymes		
	M-MLV Reverse Transcriptase	**RevertAid Reverse Transciptase**	**RevertAid H Minus Reverse Transciptase**
Brands	Invitrogen™	Thermo Scientific™	Thermo Scientific™
Lyo-ready/glycerol free	Yes	Yes	Yes
Sensitivity	Low	Low	Low
Inhibitor resistance	Low	Low	Low
Reaction speed	Low	Low	Low
Optimal reaction temp	37°–42°C	37°–42°C	37°–42°C
Trancript length	•	•	•
GC-rich target amplification	Standard	Standard	Standard
RNase H activity	Yes	Yes	No
Template switch	No	No	No
	View product	**View product**	**View product**

Reverse transcriptases

What is your RT-PCR / RT-qPCR application? ○ 1-step ● 2-step

Inhibitor tolerance? ○ Low ● Medium ○ High

	Enzymes			
	SuperScript™ III Reverse Transcriptase	**SuperScript™ II Reverse Transcriptase**	**Maxima Reverse Transcriptase**	**Maxima H Minus Reverse Transcriptase**
Brands	Invitrogen™	Invitrogen™	Thermo Scientific™	Thermo Scientific™
Lyo-ready/glycerol free	Yes	On request	Yes	Yes
Sensitivity	Medium	Medium	Medium	Medium
Inhibitor resistance	Medium	Medium	Medium	Medium
Reaction speed	Medium	Medium	Medium	Medium
Optimal reaction temp	50°C	50°C	50°C	50°C
Trancript length	••	••	•••	•••
GC-rich target amplification	High	High	Standard	Standard
RNase H activity	No	No	Yes	No
Template switch	No	Yes	No	Yes
	View product	**View product**	**View product**	**View product**

Reverse transcriptases

What is your RT-PCR / RT-qPCR application? ○ 1-step ● 2-step

Inhibitor tolerance? ○ Low ○ Medium ● High

	Enzymes
	SuperScript™ IV Reverse Transcriptase
Brands	Invitrogen™
Lyo-ready/glycerol free	Yes
Sensitivity	High
Inhibitor resistance	High
Reaction speed	High
Optimal reaction temp	50°C
Trancript length	•••
GC-rich target amplification	High
RNase H activity	No
Template switch	Yes
	View product

Modifying enzymes

What is your analyte?

- ○ RNA
- ○ DNA
- ○ RNA/DNA

Modifying enzymes

What is your analyte?

- (●) RNA
- ( ) DNA
- ( ) RNA/DNA

Choose your enzyme.

- ( ) Polymerases
- ( ) RNases
- ( ) RNase inhibitors
- ( ) Other (i.e., ligase, phosphatase, kinase & nuclease)

Modifying enzymes

What is your analyte?

- (●) RNA
- ( ) DNA
- ( ) RNA/DNA

Choose your enzyme.

- (●) Polymerases
- ( ) RNases
- ( ) RNase inhibitors
- ( ) Other (i.e., ligase, phosphatase, kinase & nuclease)

	Brand	Enzyme	Application
View product	Thermo Scientific™	Poly(A) Polymerase, Yeast	IVT, Cloning, Labeling
View product	Thermo Scientific™	T7 RNA Polymerase	IVT
View product	Thermo Scientific™	Terminal Deoxynucleotidyl Transferease	Cloning, NGS library preparation
View product	Thermo Scientific™	SP6 RNA Polymerase	IVT, NGS library preparation
View product	Thermo Scientific™	T3 RNA Polymerase	IVT, NGS library preparation

Modifying enzymes

What is your analyte?

- (●) RNA
- ( ) DNA
- ( ) RNA/DNA

Choose your enzyme.

- ( ) Polymerases
- (●) RNases
- ( ) RNase inhibitors
- ( ) Other (i.e., ligase, phosphatase, kinase & nuclease)

	Brand	Enzyme	Application
View product	Thermo Scientific™	RNase A/T1 Mix	NA preparation
View product	Thermo Scientific™	RNase A, DNase and protease-free	NA preparation, NGS library preparation
View product	Thermo Scientific™	RNase I	NA preparation
View product	Thermo Scientific™	Ribonuclease H (RNase H)	PCR, Cloning, NGS library preparation
View product	Thermo Scientific™	RNase T1	NA preparation, NGS library preparation

Modifying enzymes

What is your analyte?

- (●) RNA
- ( ) DNA
- ( ) RNA/DNA

Choose your enzyme.

- ( ) Polymerases
- ( ) RNases
- ( ) RNase inhibitors
- (●) Other (i.e., ligase, phosphatase, kinase & nuclease)

	Brand	Enzyme	Application
View product	Thermo Scientific™	T4 Polynucleotide Kinase	Cloning, NGS library preparation, Labeling
View product	Thermo Scientific™	T4 RNA Ligase	Cloning, NGS library preparation
View product	Thermo Scientific™	S1 Nuclease	Cloning, NGS library preparation
View product	Thermo Scientific™	FastAP Thermosensitive Alkaline Phosphatase	Cloning, PCR

Modifying enzymes

What is your analyte?

- (●) RNA
- ( ) DNA
- ( ) RNA/DNA

Choose your enzyme.

- ( ) Polymerases
- ( ) RNases
- (●) RNase inhibitors
- ( ) Other (i.e., ligase, phosphatase, kinase & nuclease)

	Brand	Enzyme	Application
View product	Thermo Scientific™	RiboLock RNase Inhibitor	PCR, isothermal amplification, IVT
View product	Invitrogen™	RNaseOUT™ Recombinant Ribonuclease Inhibitor	PCR, isothermal amplification, IVT
View product	Applied Biosystem™	RNase Inhibitor	PCR, isothermal amplification, IVT
View product	Invitrogen™	Superase-In™ RNase Inhibitor	PCR, isothermal amplification, IVT

Modifying enzymes

What is your analyte?

- ○ RNA
- ● DNA
- ○ RNA/DNA

Choose your enzyme.

- ○ Polymerases
- ○ DNA repair enzymes & nucleases
- ○ Restriction enzymes
- ○ Other (i.e. DNA transferases, Ligase, binding protein.)

Modifying enzymes

What is your analyte?

○ RNA ● DNA ○ RNA/DNA

Choose your enzyme.

● Polymerases ○ DNA repair enzymes & nucleases ○ Restriction enzymes ○ Other (i.e. DNA transferases, Ligase, binding protein.)

	Brand	Enzyme	Application
View product	Thermo Scientific™	DNA Polymerase I	Cloning, NGS library preparation, Labeling
View product	Thermo Scientific™	Klenow Fragment	Cloning, NGS library preparation, Labeling
View product	Thermo Scientific™	Klenow Fragment, exo-	NGS library preparation, Labeling
View product	Thermo Scientific™	T4 DNA Polymerase	IVT, Cloning
View product	Thermo Scientific™	T7 DNA Polymerase	Cloning, NGS library preparation, Labeling
View product	Thermo Scientific™	Terminal Deoxynucleotidyl Transferease	Cloning, NGS library preparation
View product	Invitrogen™	Lyo-ready Bst DNA Polymerase	DNA preamplification
View product	Thermo Scientific™	phi29 DNA Polymerase	DNA preamplification
View product	Thermo Scientific™	EquiPhi29™ DNA Polymerase	DNA preamplification

Modifying enzymes

What is your analyte?

○ RNA ● DNA ○ RNA/DNA

Choose your enzyme.

○ Polymerases ● DNA repair enzymes & nucleases ○ Restriction enzymes ○ Other (i.e. DNA transferases, Ligase, binding protein.)

	Brand	Enzyme	Application
View product	Thermo Scientific™	Endonuclease V, T.maritima	Cloning, NGS library preparation
View product	Thermo Scientific™	Endonuclease IV, E.coli	PCR, NGS library preparation
View product	Thermo Scientific™	Exonuclease I	PCR, NGS library preparation
View product	Thermo Scientific™	Exonuclease VII	PCR, NGS library preparation
View product	Thermo Scientific™	Exonuclease III	PCR, NGS library preparation
View product	Thermo Scientific™	T7 Gene 6 Exonuclease	PCR, Cloning
View product	Thermo Scientific™	Lambda Exonuclease	PCR, Cloning
View product	Thermo Scientific™	S1 Nuclease	Cloning, NGS library preparation
View product	Thermo Scientific™	DNase I, RNase-free	PCR, IVT, NGS library preparation
View product	Thermo Scientific™	Uracil-DNA Glycosylase, heat-labile	PCR, NGS library preparation
View product	Thermo Scientific™	Uracil DNA Glycosylase	PCR, NGS library preparation
View product	Thermo Scientific™	Micrococcal Nuclease	Cloning, PCR

Modifying enzymes

What is your analyte?

○ RNA ● DNA ○ RNA/DNA

Choose your enzyme.

○ Polymerases ○ DNA repair enzymes & nucleases ● Restriction enzymes ○ Other (i.e. DNA transferases, Ligase, binding protein.)

	Brand	Enzyme	Application
View products	Thermo Scientific™	FastDigest Restriction Enzymes	Cloning, PCR, IVT
View products	Thermo Scientific™	Conventional Restriction Enzymes	Cloning, PCR, IVT
View products	Invitrogen™	Anza Restriction Enzymes	Cloning, PCR, IVT

Modifying enzymes

What is your analyte?

○ RNA ● DNA ○ RNA/DNA

Choose your enzyme.

○ Polymerases ○ DNA repair enzymes & nucleases ○ Restriction enzymes ● Other (i.e. DNA transferases, Ligase, binding protein.)

	Brand	Enzyme	Enzyme Categories	Application
View product	Thermo Scientific™	T4 Polynucleotide Kinase	Phosphatases & Kinases	Cloning, NGS library preparation, Labeling
View product	Thermo Scientific™	Pyrophosphatase, inorganic	Phosphatases & Kinases	IVT, NGS library preparation
View product	Thermo Scientific™	T4 beta-glucosyltransferase	Transferase	PCR, NGS library preparation, Methylation analysis
View product	Thermo Scientific™	T4 DNA Ligase	Ligase	Cloning, NGS library preparation
View product	Thermo Scientific™	CpG Methyltransferase (M.SssI)	Transferase	PCR
View product	Thermo Scientific™	FastAP Thermosensitive Alkaline Phosphatase	Phosphatases & Kinases	Cloning, PCR
View product	Thermo Scientific™	Single-Strand Binding Protein (SSB)	Binding Proteins	PCR, NGS library preparation
View product	Invitrogen™	*E. coli* DNA Ligase	Ligase	Cloning, NGS library preparation
View product	Thermo Scientific™	T4 DNA Ligase	Ligase	Cloning, NGS library preparation
View product	Thermo Scientific™	*Thermus thermophilus* DNA Ligase	Ligase	NGS, DNA Repair

Modifying enzymes

What is your analyte?

○ RNA ○ DNA ● RNA/DNA

	Brand	Enzyme	Enzyme Categories	Application
View product	Thermo Scientific™	T4 Polynucleotide Kinase	Phosphatases & Kinases	Cloning, NGS library preparation, Labeling
View product	Thermo Scientific™	Terminal Deoxynucleotidyl Transferase	Polymerases	Cloning, NGS library preparation
View product	Thermo Scientific™	S1 Nuclease	DNA Repair Enzymes, Exo- & Endonucleases	Cloning, NGS library preparation
View product	Thermo Scientific™	FastAP Thermosensitive Alkaline Phosphatase	Phosphatases & Kinases	Cloning, PCR

Isothermal amplification

What is your analyte?

○ RNA ○ DNA

Isothermal amplification

What is your analyte?

- (●) RNA
- ( ) DNA

What is your application?

- ( ) LAMP
- ( ) RPA
- ( ) TMA
- ( ) NASBA

Isothermal amplification

What is your analyte?

● RNA ○ DNA

What is your application?

● LAMP ○ RPA ○ TMA ○ NASBA

	Enzymes					
	SuperScript™ IV RT-LAMP Master Mix	**RiboLock RNase Inhibitor**	**RnaseOUT™ Recombinant Ribonuclease Inhibitor**	**RNase Inhibitor**	**SUPERase-In™ RNase Inhibitor**	**Lyo-ready Bst DNA Polymerase**
Brand	Invitrogen™	Thermo Scientific™	Invitrogen™	Applied Biosystems™	Invitrogen™	Invitrogen™
Format	Master mix	Standalone enzyme	Standalone enzyme	Standalone enzyme	Standalone enzyme	Standalone enzyme, kit
Reaction temperature	65°C	<60°C	<65°C	<60°C	<60°C	37°–65°C
Lyo-ready/glycerol free	On request	Yes	Yes	On request	No	Yes
	View product	**View product**	**View product**	**View product**	**View product**	**View product**

Isothermal amplification

What is your analyte? ● RNA ○ DNA

What is your application? ○ LAMP ● RPA ○ TMA ○ NASBA

	Enzymes		
	RiboLock RNase Inhibitor	**RNaseOUT™ Recombinant Ribonuclease Inhibitor**	**SUPERase-In™ RNase Inhibitor**
Brand	Thermo Scientific™	Invitrogen™	Invitrogen™
Format	Standalone enzyme	Standalone enzyme	Standalone enzyme
Reaction temperature	<60°C	<65°C	<60°C
Lyo-ready/glycerol free	Yes	Yes	No
	View product	**View product**	**View product**

Isothermal amplification

What is your analyte? ● RNA ○ DNA

What is your application? ○ LAMP ○ RPA ● TMA ○ NASBA

	Enzymes	
	RNase Inhibitor	**T7 RNA Polymerase**
Brand	Applied Biosystems™	Thermo Scientific™
Format	Standalone enzyme	Standalone enzyme
Reaction temperature	<60°C	37°C
Lyo-ready/glycerol free	On request	High concentration
	View product	**View product**

Isothermal amplification

What is your analyte? ● RNA ○ DNA

What is your application? ○ LAMP ○ RPA ○ TMA ● NASBA

	Enzymes		
	RNase Inhibitor	**T7 RNA Polymerase**	**Ribonuclease H (RNase H)**
Brand	Applied Biosystems™	Thermo Scientific™	Thermo Scientific™
Format	Standalone enzyme	Standalone enzyme	Standalone enzyme
Reaction temperature	<60°C	37°C	37°C
Lyo-ready/glycerol free	On request	High concentration	High concentration
	View product	**View product**	**View product**

Isothermal amplification

What is your analyte?

- ○ RNA
- ● DNA

What is your application?

- ○ LAMP
- ○ RCA
- ○ MDA
- ○ RPA
- ○ HDA
- ○ SDA
- ○ EXPAR

Isothermal amplification

What is your analyte? ○ RNA ● DNA

What is your application? ● LAMP ○ RCA ○ MDA ○ RPA ○ HDA ○ SDA ○ EXPAR

	Enzymes		
	Lyo-ready Bst DNA Polymerase	**SuperScript™ IV RT-LAMP Master Mix**	**Bsm DNA Polymerase, large fragment**
Brand	Invitrogen™	Invitrogen™	Thermo Scientific™
Format	Standalone enzyme, kit	Master mix	Standalone enzyme
Reaction temperature	37–65°C	65°C	37°–60°C
Lyo-ready/glycerol free	Yes	On request	Yes
	View product	**View product**	**View product**

Isothermal amplification

What is your analyte? ○ RNA ● DNA

What is your application? ○ LAMP ● RCA ○ MDA ○ RPA ○ HDA ○ SDA ○ EXPAR

	Enzymes			
	phi29 DNA Polymerase	**EquiPhi29™ DNA Polymerase**	**EquiPhi29™ DNA Amplification Kit**	**Lyo-ready Bst DNA Polymerase**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Invitrogen™
Format	Standalone enzyme	Standalone enzyme	Kit	Standalone enzyme
Reaction temperature	37°C	37°–45°C	42°C	37°–65°C
Lyo-ready/glycerol free	High concentration	Yes	On request	Yes
	View product	**View product**	**View product**	**View product**

Isothermal amplification

What is your analyte? ○ RNA ● DNA

What is your application? ○ LAMP ○ RCA ● MDA ○ RPA ○ HDA ○ SDA ○ EXPAR

	Enzymes	
	phi29 DNA Polymerase	**EquiPhi29™ DNA Polymerase**
Brand	Thermo Scientific™	Thermo Scientific™
Format	Standalone enzyme	Standalone enzyme
Reaction temperature	37°C	37°–45°C
Lyo-ready/glycerol free	High concentration	Yes
	View product	**View product**

Isothermal amplification

What is your analyte? ○ RNA ● DNA

What is your application? ○ LAMP ○ RCA ○ MDA ● RPA ○ HDA ○ SDA ○ EXPAR

	Enzymes				
	Lyo-ready Bst DNA Polymerase	**T4 UvsX**	**T4 Gene 32 Protein**	**T4 UvsY**	**Lyo-ready RPA Kit**
Brand	Invitrogen™	Invitrogen™	Invitrogen™	Invitrogen™	Invitrogen™
Format	Standalone enzyme	Standalone enzyme	Standalone enzyme	Standalone enzyme	Kit
Reaction temperature	37°–65°C	42°C	42°C	42°C	42°C
Lyo-ready/glycerol free	Yes	Yes	Yes	Yes	Yes
	View product	**View product**	**View product**	**View product**	**View product**

Isothermal amplification

What is your analyte?

○ RNA ● DNA

What is your application?

○ LAMP ○ RCA ○ MDA ○ RPA ● HDA ○ SDA ○ EXPAR

	Enzymes
	Lyo-ready Bst DNA Polymerase
Brand	Invitrogen™
Format	Standalone enzyme
Reaction temperature	37°–65°C
Lyo-ready/glycerol free	Yes
	View product

Isothermal amplification

What is your analyte? ○ RNA ● DNA

What is your application? ○ LAMP ○ RCA ○ MDA ○ RPA ○ HDA ● SDA ○ EXPAR

	Enzymes
	Klenow Fragment, exo–
Brand	Thermo Scientific™
Format	Standalone enzyme
Reaction temperature	37°C
Lyo-ready/glycerol free	High concentration
	View product

Isothermal amplification

What is your analyte? ○ RNA ● DNA

What is your application? ○ LAMP ○ RCA ○ MDA ○ RPA ○ HDA ○ SDA ● EXPAR

	Enzymes
	Lyo-ready Bst DNA Polymerase
Brand	Invitrogen™
Format	Standalone enzyme
Reaction temperature	37°–65°C
Lyo-ready/glycerol free	Yes
	View product

NGS library prep

What is your analyte?

- ◯ RNA
- ◯ DNA

NGS library prep

What is your analyte?

- (●) RNA
- ( ) DNA

Choose your sample type.

- ( ) FFPE
- ( ) Whole transcriptome

NGS library prep

What is your analyte?

- ● RNA
- ○ DNA

Choose your sample type.

- ● FFPE
- ○ Whole transcriptome

Which step?

- ○ RNA end repair
- ○ Redundant sequence removal
- ○ Reverse transcription
- ○ cDNA end repair
- ○ Adapter addition
- ○ Library amplification

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ● FFPE ○ Whole transcriptome

Which step? ● RNA end repair ○ Redundant sequence removal ○ Reverse transcription ○ cDNA end repair ○ Adapter addition ○ Library amplification

	Enzymes
	T4 Polynucleotide Kinase
Brand	Thermo Scientific™
Description	T4 Polynucleotide Kinase (T4 PNK) catalyzes the transfer of the gamma-phosphate from ATP to the 5'-OH group of single- and double-stranded DNAs and RNAs, oligonucleotides, or nucleoside 3'-monophosphates (forward reaction). The reaction is reversible. The enzyme is used for 5'-phosphorylation and removal of 3'-phosphate groups.
	View product

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ● FFPE ○ Whole transcriptome

Which step? ○ RNA end repair ● Redundant sequence removal ○ Reverse transcription ○ cDNA end repair ○ Adapter addition ○ Library amplification

	Enzymes
	Ribonuclease H (RNase H)
Brand	Thermo Scientific™
Description	Ribonuclease H (RNase H) specifically degrades the RNA strand in RNA-DNA hybrids.

View product

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ● FFPE ○ Whole transcriptome

Which step? ○ RNA end repair ○ Redundant sequence removal ● Reverse transcription ○ cDNA end repair ○ Adapter addition ○ Library amplification

	Enzymes						
	SuperScript™ IV Reverse Transcriptase	RiboLock RNase Inhibitor	DNA Polymerase I	Ribonuclease H (RNase H)	dNTP Mix	Random Hexamer Primer	Oligo(dT)$_{18}$ Primer
Brand	Invitrogen™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	SuperScript IV Reverse Transcriptase (RT) is a proprietary MMLV mutant with superior robustness and reliability in RT reactions. SuperScript IV RT is designed to provide reliable, consistent, and fast cDNA synthesis in the presence of inhibitors found in a wide variety of samples that cause other currently available RTs to perform inefficiently.	RiboLock RNase Inhibitor inhibits the activity of RNases A,B and C by binding them in a noncompetitive mode. The enzyme is used to prevent RNA from degradation by RNases.	DNA Polymerase I, a template-dependent DNA polymerase, catalyzes 5'⟶3' synthesis of DNA. The enzyme also exhibits 3'⟶5' exonuclease (proofreading) activity, 5'⟶3' exonuclease activity, and ribonuclease H activity. The enzyme is used for second cDNA strand synthesis.	Ribonuclease H (RNase H) specifically degrades the RNA strand in RNA-DNA hybrids.	dNTP Mix contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM.	Random Hexamer Primer is a mixture of single-stranded random hexanucleotides with 5'- and 3'-hydroxyl ends. Random Hexamer primers are used for cDNA synthesis.	Oligo(dT)$_{18}$ Primer is a synthetic single-stranded 18-mer oligonucleotide with 5'- and 3'-hydroxyl ends. Oligo(dT) primers are used for cDNA synthesis starting from the poly(A) tails of mRNAs.
	View product	View product	View product	View product	View product	View product	View product

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ● FFPE ○ Whole transcriptome

Which step? ○ RNA end repair ○ Redundant sequence removal ○ Reverse transcription ● cDNA end repair ○ Adapter addition ○ Library amplification

	Enzymes			
	T4 Polynucleotide Kinase	**T4 DNA Polymerase**	**Klenow Fragment**	**Klenow Fragment, exo-**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	T4 Polynucleotide Kinase (T4 PNK) catalyzes the transfer of the gamma-phosphate from ATP to the 5'-OH group of single- and double-stranded DNAs and RNAs, oligonucleotides, or nucleoside 3'-monophosphates (forward reaction). The reaction is reversible. The enzyme is used for 5'-phosphorylation and removal of 3'-phosphate groups.	T4 DNA Polymerase is a template-dependent DNA polymerase with strong 3'-5' exonuclease activity. T4 DNA Polymerase is used for blunting of DNA ends: removal of 3'-overhangs.	Klenow Fragment is the large fragment of DNA polymerase I. It exhibits 5'⟶3' polymerase activity and 3'⟶5' exonuclease activity, but lacks 5'⟶3' exonuclease activity of DNA polymerase I. The enzyme is used for DNA blunting by fill-in 5'-overhangs.	Klenow Fragment, exo-, is the large fragment of DNA polymerase I. It exhibits 5'⟶3' polymerase activity, but lacks the 3'⟶5' and 5'⟶3' exonuclease activities of DNA Polymerase I. The enzyme is used for filling 5'-overhangs of dsDNA.
	View product	**View product**	**View product**	**View product**

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ● FFPE ○ Whole transcriptome

Which step? ○ RNA end repair ○ Redundant sequence removal ○ Reverse transcription ○ cDNA end repair ● Adapter addition ○ Library amplification

	Enzymes	
	T4 DNA Ligase	**T4 RNA Ligase**
Brand	Thermo Scientific™	Thermo Scientific™
Description	T4 DNA Ligase catalyzes the formation of a phosphodiester bond between juxtaposed 5'-phosphate and 3'-hydroxyl termini in duplex DNA or RNA. The enzyme is used for addition of adapters to dsDNA.	T4 RNA Ligase catalyzes the ATP-dependent intra- and intermolecular formation of phosphodiester bonds between 5'-phosphate and 3'-hydroxyl termini of oligonucleotides, single-stranded RNA and DNA. The enzyme is used for addition of adapters to RNA.
	View product	**View product**

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ● FFPE ○ Whole transcriptome

Which step? ○ RNA end repair ○ Redundant sequence removal ○ Reverse transcription ○ cDNA end repair ○ Adapter addition ● Library amplification

	Enzymes			
	Phusion™ Plus DNA Polymerase	**dNTP Mix**	**Exonuclease I**	**Exonuclease VII**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	Phusion Plus DNA Polymerase is a hot-start, high-fidelity DNA polymerase that brings together protein fusion technology and universal primer annealing. The enzyme is used for NGS library amplification. The enzyme should be used with GC enhancer.	dNTP Mix contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM.	Exonuclease I (ExoI) degrades single-stranded DNA in a 3'⟶5' direction. The enzyme is used for primer removal after NGS library amplification.	Exonuclease VII is a strict single-strand directed enzyme with 5'⟶3' and 3'⟶5' exonuclease activities, making it the only bi-directional exonuclease with single-stranded specificity. The enzyme is used for oligonucleotides/primers removal after NGS library amplification.
	View product	View product	View product	View product

NGS library prep

What is your analyte?

- ● RNA
- ○ DNA

Choose your sample type.

- ○ FFPE
- ● Whole transcriptome

Which step?

- ○ RNA end repair
- ○ Redundant sequence removal
- ○ Reverse transcription
- ○ cDNA end repair
- ○ Adapter addition
- ○ Library amplification

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ○ FFPE ● Whole transcriptome

Which step? ● RNA end repair ○ Redundant sequence removal ○ Reverse transcription ○ cDNA end repair ○ Adapter addition ○ Library amplification

	Enzymes
	T4 Polynucleotide Kinase
Brand	Thermo Scientific™
Description	T4 Polynucleotide Kinase (T4 PNK) catalyzes the transfer of the gamma-phosphate from ATP to the 5'-OH group of single- and double-stranded DNAs and RNAs, oligonucleotides, or nucleoside 3'-monophosphates (forward reaction). The reaction is reversible. The enzyme is used for 5'-phosphorylation and removal of 3'-phosphate groups.
	View product

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ○ FFPE ● Whole transcriptome

Which step? ○ RNA end repair ● Redundant sequence removal ○ Reverse transcription ○ cDNA end repair ○ Adapter addition ○ Library amplification

	Enzymes
	Ribonuclease H (RNase H)
Brand	Thermo Scientific™
Description	Ribonuclease H (RNase H) specifically degrades the RNA strand in RNA-DNA hybrids.

View product

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ○ FFPE ● Whole transcriptome

Which step? ○ RNA end repair ○ Redundant sequence removal ● Reverse transcription ○ cDNA end repair ○ Adapter addition ○ Library amplification

	Enzymes						
	SuperScript™ IV Reverse Transcriptase	RiboLock RNase Inhibitor	DNA Polymerase I	Ribonuclease H (RNase H)	dNTP Mix	Random Hexamer Primer	Oligo(dT)$_{18}$ Primer
Brand	Invitrogen™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	SuperScript IV Reverse Transcriptase (RT) is a proprietary MMLV mutant with superior robustness and reliability in RT reactions. SuperScript IV RT is designed to provide reliable, consistent, and fast cDNA synthesis in the presence of inhibitors found in a wide variety of samples that cause other currently available RTs to perform inefficiently.	RiboLock RNase Inhibitor inhibits the activity of RNases A,B and C by binding them in a noncompetitive mode. The enzyme is used to prevent RNA from degradation by RNases.	DNA Polymerase I, a template-dependent DNA polymerase, catalyzes 5'⟶3' synthesis of DNA. The enzyme also exhibits 3'⟶5' exonuclease (proofreading) activity, 5'⟶3' exonuclease activity, and ribonuclease H activity. The enzyme is used for second cDNA strand synthesis.	Ribonuclease H (RNase H) specifically degrades the RNA strand in RNA-DNA hybrids.	dNTP Mix contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM.	Random Hexamer Primer is a mixture of single-stranded random hexanucleotides with 5'- and 3'-hydroxyl ends. Random Hexamer primers are used for cDNA synthesis.	Oligo(dT)18 Primer is a synthetic single-stranded 18-mer oligonucleotide with 5'- and 3'-hydroxyl ends. Oligo(dT) primers are used for cDNA synthesis starting from the poly(A) tails of mRNAs.
	View product	View product	View product	View product	View product	View product	View product

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ○ FFPE ● Whole transcriptome

Which step? ○ RNA end repair ○ Redundant sequence removal ○ Reverse transcription ● cDNA end repair ○ Adapter addition ○ Library amplification

	Enzymes					
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	DNase I (RNase-free) is an endonuclease that digests single- and double-stranded DNA.	Single-Stranded DNA Binding Protein (SSB) binds with high affinity in a cooperative manner to single-stranded DNA. After binding single-stranded DNA, SSB destabilizes helical duplexes.	T4 Polynucleotide Kinase (T4 PNK) catalyzes the transfer of the gamma-phosphate from ATP to the 5'-OH group of single- and double-stranded DNAs and RNAs, oligonucleotides, or nucleoside 3'-monophosphates (forward reaction). The reaction is reversible. The enzyme is used for 5'-phosphorylation and removal of 3'-phosphate groups.	T4 DNA Polymerase is a template-dependent DNA polymerase with strong 3'-5' exonuclease activity. T4 DNA Polymerase is used for blunting of DNA ends: removal of 3'-overhangs.	Klenow Fragment is the large fragment of DNA polymerase I. It exhibits 5'⟶3' polymerase activity and 3'⟶5' exonuclease activity, but lacks 5'⟶3' exonuclease activity of DNA polymerase I. The enzyme is used for DNA blunting by fill-in 5'-overhangs.	Klenow Fragment, exo-, is the large fragment of DNA polymerase I. It exhibits 5'⟶3' polymerase activity, but lacks the 3'⟶5' and 5'⟶3' exonuclease activities of DNA Polymerase I. The enzyme is used for filling 5'-overhangs of dsDNA.
	View product	View product	View product	View product	View product	View product

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ○ FFPE ● Whole transcriptome

Which step? ○ RNA end repair ○ Redundant sequence removal ○ Reverse transcription ○ cDNA end repair ● Adapter addition ○ Library amplification

	Enzymes	
	T4 DNA Ligase	**T4 RNA Ligase**
Brand	Thermo Scientific™	Thermo Scientific™
Description	T4 DNA Ligase catalyzes the formation of a phosphodiester bond between juxtaposed 5'-phosphate and 3'-hydroxyl termini in duplex DNA or RNA. The enzyme is used for addition of adapters to dsDNA.	T4 RNA Ligase catalyzes the ATP-dependent intra- and intermolecular formation of phosphodiester bonds between 5'-phosphate and 3'-hydroxyl termini of oligonucleotides, single-stranded RNA and DNA. The enzyme is used for addition of adapters to RNA.
	View product	**View product**

NGS library prep

What is your analyte? ● RNA ○ DNA

Choose your sample type. ○ FFPE ● Whole transcriptome

Which step? ○ RNA end repair ○ Redundant sequence removal ○ Reverse transcription ○ cDNA end repair ○ Adapter addition ● Library amplification

	Enzymes			
	Phusion™ Plus DNA Polymerase	**dNTP Mix**	**Exonuclease I**	**Exonuclease VII**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	Phusion Plus DNA Polymerase is a hot-start, high-fidelity DNA polymerase that brings together protein fusion technology and universal primer annealing. The enzyme is used for NGS library amplification. The enzyme should be used with GC enhancer.	dNTP Mix contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM.	Exonuclease I (ExoI) degrades single-stranded DNA in a 3'⟶5' direction. The enzyme is used for primer removal after NGS library amplification.	Exonuclease VII is a strict single-strand directed enzyme with 5'⟶3' and 3'⟶5' exonuclease activities, making it the only bi-directional exonuclease with single-stranded specificity. The enzyme is used for oligonucleotides/primers removal after NGS library amplification.
	View product	View product	View product	View product

NGS library prep

What is your analyte?

- ○ RNA
- ● DNA

Choose your sample type.

- ○ FFPE
- ○ gDNA

NGS library prep

What is your analyte?

- ○ RNA
- ● DNA

Choose your sample type.

- ● FFPE
- ○ gDNA

Which step?

- ○ DNA repair
- ○ Fragmentation
- ○ End repair
- ○ Adapter addition
- ○ Target enrichment
- ○ Library amplification

NGS library prep

What is your analyte? ○ RNA ● DNA

Choose your sample type. ● FFPE ○ gDNA

Which step? ● DNA repair ○ Fragmentation ○ End repair ○ Adapter addition ○ Target enrichment ○ Library amplification

	Enzymes					
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	Uracil-DNA Glycosylase (UDG, UNG) catalyzes the hydrolysis of the N-glycosylic bond between uracil and sugar, leaving an apyrimidinic site in uracil-containing single or double-stranded DNA. The enzyme is used for damaged DNA repair (removes uracil).	Endonuclease IV recognizes apurinic/apyrimidinic (AP) sites of dsDNA and cleaves the phosphodiester bond 5' to the lesion generating a hydroxyl group at the 3'-terminus. The enzyme is used to repair DNA ends.	Endonuclease V is a 3'-endonuclease involved in DNA repair, which initiates removal of deaminated bases from damaged DNA, including uracil, hypoxanthine, and xanthine.	Bsm DNA Polymerase, Large Fragment, is an equivalent to Bst DNA polymerase, which catalyzes 5'⟶3' synthesis of DNA and lacks 5'⟶3' and 3'⟶5' exonuclease activities. The enzyme is used for DNA end repair.	T4 Polynucleotide Kinase (T4 PNK) catalyzes the transfer of the gamma-phosphate from ATP to the 5'-OH group of single- and double-stranded DNAs and RNAs, oligonucleotides, or nucleoside 3'-monophosphates (forward reaction). The reaction is reversible. The enzyme is used for 5'-phosphorylation and removal of 3'-phosphate groups.	T4 DNA Polymerase is a template-dependent DNA polymerase with strong 3'-5' exonuclease activity. T4 DNA Polymerase is used for blunting of DNA ends: removal of 3'-overhangs.
	View product	View product	View product	View product	View product	View product

NGS library prep

What is your analyte? ○ RNA ● DNA

Choose your sample type. ● FFPE ○ gDNA

Which step? ○ DNA repair ● Fragmentation ○ End repair ○ Adapter addition ○ Target enrichment ○ Library amplification

	Enzymes	
	DNase I, RNase-free	**Single-Stranded DNA Binding Protein (SSB)**
Brand	Thermo Scientific™	Thermo Scientific™
Description	DNase I (RNase-free) is an endonuclease that digests single- and double-stranded DNA.	Single-Stranded DNA Binding Protein (SSB) binds with high affinity in a cooperative manner to single-stranded DNA. After binding single-stranded DNA, SSB destabilizes helical duplexes.
	View product	**View product**

NGS library prep

What is your analyte? ○ RNA ● DNA

Choose your sample type. ● FFPE ○ gDNA

Which step? ○ DNA repair ○ Fragmentation ● End repair ○ Adapter addition ○ Target enrichment ○ Library amplification

	Enzymes			
	T4 Polynucleotide Kinase	**T4 DNA Polymerase**	**Klenow Fragment**	**Klenow Fragment, exo-**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	T4 Polynucleotide Kinase (T4 PNK) catalyzes the transfer of the gamma-phosphate from ATP to the 5'-OH group of single- and double-stranded DNAs and RNAs, oligonucleotides, or nucleoside 3'-monophosphates (forward reaction). The reaction is reversible. The enzyme is used for 5'-phosphorylation and removal of 3'-phosphate groups.	T4 DNA Polymerase is a template-dependent DNA polymerase with strong 3'-5' exonuclease activity. T4 DNA Polymerase is used for blunting of DNA ends: removal of 3'-overhangs.	Klenow Fragment is the large fragment of DNA polymerase I. It exhibits 5'⟶3' polymerase activity and 3'⟶5' exonuclease activity, but lacks 5'⟶3' exonuclease activity of DNA polymerase I. The enzyme is used for DNA blunting by fill-in 5'-overhangs.	Klenow Fragment, exo-, is the large fragment of DNA polymerase I. It exhibits 5'⟶3' polymerase activity, but lacks the 3'⟶5' and 5'⟶3' exonuclease activities of DNA Polymerase I. The enzyme is used for filling 5'-overhangs of dsDNA.
	View product	**View product**	**View product**	**View product**

NGS library prep

What is your analyte? ○ RNA ● DNA

Choose your sample type. ● FFPE ○ gDNA

Which step? ○ DNA repair ○ Fragmentation ○ End repair ● Adapter addition ○ Target enrichment ○ Library amplification

	Enzymes
	T4 DNA Ligase
Brand	Thermo Scientific™
Description	T4 DNA Ligase catalyzes the formation of a phosphodiester bond between juxtaposed 5'-phosphate and 3'-hydroxyl termini in duplex DNA or RNA. The enzyme is used for addition of adapters to dsDNA.
	View product

NGS library prep

What is your analyte? ○ RNA ● DNA

Choose your sample type. ● FFPE ○ gDNA

Which step? ○ DNA repair ○ Fragmentation ○ End repair ○ Adapter addition ● Target enrichment ○ Library amplification

	Enzymes		
	Phusion™ Plus DNA Polymerase	**Phusion U Hot start DNA Polymerase**	**dNTP Mix**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	Phusion Plus DNA Polymerase is a hot-start, high-fidelity DNA polymerase that brings together protein fusion technology and universal primer annealing. The enzyme is used for target enrichment.	Phusion U DNA polymerase can incorporate dUTP and read through uracil present in DNA templates. The enzyme is used to amplify DNA containing uracil.	dNTP Mix contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM.
	View product	**View product**	**View product**

NGS library prep

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Choose your sample type. ● FFPE ○ gDNA

Which step? ○ DNA repair ○ Fragmentation ○ End repair ○ Adapter addition ○ Target enrichment ● Library amplification

	Enzymes		
	Phusion™ Plus DNA Polymerase	**Exonuclease I**	**Exonuclease VII**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	Phusion Plus DNA Polymerase is a hot-start, high-fidelity DNA polymerase that brings together protein fusion technology and universal primer annealing. The enzyme is used for target enrichment.	Exonuclease I (ExoI) degrades single-stranded DNA in a 3'⟶5' direction. The enzyme is used for primer removal after NGS library amplification.	Exonuclease VII is a strict single-strand directed enzyme with 5'⟶3' and 3'⟶5' exonuclease activities, making it the only bi-directional exonuclease with single-stranded specificity. The enzyme is used for oligonucleotides/primers removal after NGS library amplification.
	View product	**View product**	**View product**

NGS library prep

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Choose your sample type. ○ FFPE ● gDNA

Which step? ○ Fragmentation ○ End repair ○ Adapter addition ○ Target enrichment ○ Library amplification

NGS library prep

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Choose your sample type. ○ FFPE ● gDNA

Which step? ● Fragmentation ○ End repair ○ Adapter addition ○ Target enrichment ○ Library amplification

	Enzymes		
	DNase I, RNase-free	**Single-Stranded DNA Binding Protein (SSB)**	**MuA Transposase**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	DNase I (RNase-free) is an endonuclease that digests single- and double-stranded DNA.	Single-Stranded DNA Binding Protein (SSB) binds with high affinity in a cooperative manner to single-stranded DNA. After binding single-stranded DNA, SSB destabilizes helical duplexes.	MuA Transposase catalyzes transposition reaction in vitro.
	View product	**View product**	**View product**

NGS library prep

What is your analyte? ○ RNA ● DNA

Choose your sample type. ○ FFPE ● gDNA

Which step? ○ Fragmentation ● End repair ○ Adapter addition ○ Target enrichment ○ Library amplification

	Enzymes			
	T4 Polynucleotide Kinase	**T4 DNA Polymerase**	**Klenow Fragment**	**Klenow Fragment, exo-**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	T4 Polynucleotide Kinase (T4 PNK) catalyzes the transfer of the gamma-phosphate from ATP to the 5'-OH group of single- and double-stranded DNAs and RNAs, oligonucleotides, or nucleoside 3'-monophosphates (forward reaction). The reaction is reversible. The enzyme is used for 5'-phosphorylation and removal of 3'-phosphate groups.	T4 DNA Polymerase is a template-dependent DNA polymerase with strong 3'-5' exonuclease activity. T4 DNA Polymerase is used for blunting of DNA ends: removal of 3'-overhangs.	Klenow Fragment is the large fragment of DNA polymerase I. It exhibits 5'⟶3' polymerase activity and 3'⟶5' exonuclease activity, but lacks 5'⟶3' exonuclease activity of DNA polymerase I. The enzyme is used for DNA blunting by fill-in 5'-overhangs.	Klenow Fragment, exo-, is the large fragment of DNA polymerase I. It exhibits 5'⟶3' polymerase activity, but lacks the 3'⟶5' and 5'⟶3' exonuclease activities of DNA Polymerase I. The enzyme is used for filling 5'-overhangs of dsDNA.
	View product	**View product**	**View product**	**View product**

NGS library prep

What is your analyte? ○ RNA ● DNA

Choose your sample type. ○ FFPE ● gDNA

Which step? ○ Fragmentation ○ End repair ● Adapter addition ○ Target enrichment ○ Library amplification

	Enzymes
	T4 DNA Ligase
Brand	Thermo Scientific™
Description	T4 DNA Ligase catalyzes the formation of a phosphodiester bond between juxtaposed 5'-phosphate and 3'-hydroxyl termini in duplex DNA or RNA. The enzyme is used for addition of adapters to dsDNA.
	View product

NGS library prep

What is your analyte? ○ RNA ● DNA

Choose your sample type. ○ FFPE ● gDNA

Which step? ○ Fragmentation ○ End repair ○ Adapter addition ● Target enrichment ○ Library amplification

	Enzymes	
	Phusion™ Plus DNA Polymerase	**dNTP Mix**
Brand	Thermo Scientific™	Thermo Scientific™
Description	Phusion Plus DNA Polymerase is a hot-start, high-fidelity DNA polymerase that brings together protein fusion technology and universal primer annealing. The enzyme is used for target enrichment.	dNTP Mix contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM.
	View product	**View product**

NGS library prep

What is your analyte? ○ RNA ● DNA

Choose your sample type. ○ FFPE ● gDNA

Which step? ○ Fragmentation ○ End repair ○ Adapter addition ○ Target enrichment ● Library amplification

	Enzymes			
	Phusion™ Plus DNA Polymerase	**dNTP Mix**	**Exonuclease I**	**Exonuclease VII**
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Description	Phusion Plus DNA Polymerase is a hot-start, high-fidelity DNA polymerase that brings together protein fusion technology and universal primer annealing. The enzyme is used for target enrichment.	dNTP Mix contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM.	Exonuclease I (ExoI) degrades single-stranded DNA in a 3'⟶5' direction. The enzyme is used for primer removal after NGS library amplification.	Exonuclease VII is a strict single-strand directed enzyme with 5'⟶3' and 3'⟶5' exonuclease activities, making it the only bi-directional exonuclease with single-stranded specificity. The enzyme is used for oligonucleotides/primers removal after NGS library amplification.
	View product	**View product**	**View product**	**View product**

Nucleotides & reagents

What is your format?

- ◯ Mix
- ◯ Standalone

Nucleotides & reagents

What is your format? ● Mix ○ Standalone

	Reagents					
	dNTP Mix (25 mM each)	dNTP Mix (10 mM each)	dNTP/dUTP Mix	dNTP Mix (10 mM ea)	GeneAmp™ dNTP Blend with dUTP (12.5 mM)	dNTP Mix (2.5 mM)
Brand	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Invitrogen™	Applied Biosystems™	Invitrogen™
Type	Nucleotide	Nucleotide	Nucleotide	Nucleotide	Nucleotide	Nucleotide
Description	"dNTP Mixes contain dATP, dCTP, dGTP and dTTP, each at different final concentrations (from 2.5 mM to 25 mM). The Mix offers the possibility to reduce the number of pipetting steps and the risk of reaction set-up errors."					
Specification	Thermo Scientific dNTP Mix (25 mM) contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 25 mM.	Thermo Scientific dNTP Mix (10 mM) contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM.	Thermo Scientific dNTP/dUTP Mix is a solution containing dATP, dCTP and dGTP, each at a final concentration of 2 mM and dUTP of 4 mM.	Thermo Scientific dNTP Mix (10 mM) contains premixed aqueous solutions of dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM.	GeneAmp dNTP Blend, 12.5 mM with dUTP contains 2.5 mM each of dATP, dCTP, dGTP and 5.0 mM of dUTP	Invitrogen 2.5 mM dNTP Mix consists of a solution of all four nucleotides, dATP, dCTP, dGTP, and dTTP, each at a concentration of 2.5 mM.
	View product	View product	View product	View product	View product	View product

Nucleotides & reagents

What is your format?

○ Mix ● Standalone

	Reagents						
	dNTP Set, 100 mM Solutions	dNTP Set (100 mM)	dUTP Solution (100 mM)	dGTP Solution (100 mM)	dTTP Solution (100 mM)	dATP Solution (100 mM)	dCTP Solution(100mM)
Brand	Thermo Scientific™	Invitrogen™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™	Thermo Scientific™
Type	Nucleotide	Nucleotide	Nucleotide	Nucleotide	Nucleotide	Nucleotide	Nucleotide
Description	Nucleotides, molecular biology grade. highly purified dNTPs for direct use in enzymatic reactions. Thermo Fisher Scientific is one of the few primary manufacturers of nucleotides in the industry. All Thermo Scientific™ nucleotides are supplied in aqueous solutions titrated to pH 7.5 with NaOH.						
Applications	dNTPs can be used in PCR, qPCR, cDNA synthesis, high-fidelity and long PCR, isothermal amplification, next-generation sequencing, DNA labeling, and other molecular biology applications.						
	View product	View product	View product	View product	View product	View product	View product