

Product Information Sheet

Product Name: AlloyTaq™ Polymerase, High Fidelity with 10X Reaction Buffer*

Concentration: 5U/μl

Ordering Information:

Item Number	Units	Number of Tubes	Total Volume
SS-AT-HF-RB-25	25	AlloyTaq Polymerase, High Fidelity - 25 Units (1), 10X AlloyTaq Reaction Buffer – 0.25mL (1)	AlloyTaq Polymerase, High Fidelity - (5μL), 10X AlloyTaq Reaction Buffer – (0.25mL)
AT-HF-RB-100	100	AlloyTaq Polymerase, High Fidelity - 100 Units (1), 10X AlloyTaq Reaction Buffer - 1mL (1)	AlloyTaq Polymerase, High Fidelity - (20μL), 10X AlloyTaq Reaction Buffer - (1mL)
AT-HF-RB-200	200	AlloyTaq Polymerase, High Fidelity - 100 Units (2), 10X AlloyTaq Reaction Buffer - 1mL (1)	AlloyTaq Polymerase, High Fidelity - (40μL), 10X AlloyTaq Reaction Buffer - (1mL)
AT-HF-RB-500	500	AlloyTaq Polymerase, High Fidelity - 500 Units (1), 10X AlloyTaq Reaction Buffer - 1mL (2)	AlloyTaq Polymerase, High Fidelity - (100μL), 10X AlloyTaq Reaction Buffer - (2mL)
AT-HF-RB-1000	1000	AlloyTaq Polymerase, High Fidelity - 500 Units (2), 10X AlloyTaq Reaction Buffer - 1mL (4)	AlloyTaq Polymerase, High Fidelity - (200μL), 10X AlloyTaq Reaction Buffer - (4mL)

Storage and Handling:

Store at -20°C upon arrival.

Product Description:

AlloyTaq™ Polymerase is an optimized blend of Taq and Integrity High Fidelity Polymerases™ from species pyrococcus GBD. With the 3'-5' proofreading ability of Integrity and the robust amplification of Taq, AlloyTaq™ is not only great for routine PCR, but also high fidelity and longer and more difficult amplicons. This composition increases fidelity of Taq by greater than two fold. AlloyTaq™ Polymerase will produce blunt ended overhang products at the 3' end.

Empirical AlloyTaq™ Polymerase is supplied with an optimized 10X Reaction buffer.

Reaction Set-up: For a 50μl reaction include

Component	Volume	Final Concentration
10X AlloyTaq™ Reaction Buffer	5 μl	1X
Upstream Primer, 10 μM	0.5-5.0 μl	0.1-1.0μM
Downstream Primer, 10 μM	0.5-5.0 μl	0.1-1.0μM
dNTP, 10mM	1-2.5 μl	200-500μM
DNA Template	X μl	> 1ng
AlloyTaq™ Polymerase	0.25-1uL	1.25U-5U
Nuclease Free Water	to 50 μl	N.A.

* This product is for "Research Use Only. Not for use in diagnostic procedures".
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Thermal cycling conditions: The following general cycling conditions are recommended but can vary depending on the template and primers being used.

Cycling Step	Temperature	Holding Time	Cycles
Initial Denaturation	95°C	2min	1
Denaturation	98°C	10sec	20-30
Annealing**	68°C	60sec	
Extension	70°C	(1min/kb)	
Final Extension	72°C	10min	1

** Annealing will depend on primer length and composition. Generally, begin 5°C below primer T_m.

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