

Thermostable dUTPase *Pyrococcus furiosus* Recombinant

Item Number	rAP-1534
Synonyms	Thermostable dUTPase, dUTPase.
Description	Thermostable dUTPase (<i>pyrococcus furiosus</i>) maximizes the efficiency of high-fidelity PCR (using proof-reading DNA polymerases). It removes contaminating dUTP present in PCR reactions and dNTP solutions. The presence of dUTPase in a proofreading DNA polymerase reaction can prevent dUTP misincorporation
Uniprot Accesion Number	
Amino Acid Sequence	
Source	Escherichia Coli.
Physical Appearance and Stability	Sterile filtered liquid formulation. Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.
Formulation and Purity	dUTPase is supplied in 20mM Tris-HCl (pH 8.2), 1mM DTT, 0.1mM EDTA, 100mM KCl, 0.1% Nonidet P40, 0.1% Tween 20 and 50% glycerol at a concentration of 10U/μl of the enzyme. Greater than 97.0% as determined by SDS-PAGE.
Application	
Solubility	
Biological Activity	(A) Measured by its ability to hydrolyze dUTP to dUMP in reaction buffer 20mM Hepes pH7.5, 150mM KCl, 5mM MgCl ₂ , 10mM dUTP at 85 Centigrade for 1 hour. The PPi production was quantified by using the enzymatic determination kit from Sigma.(B) Enhancing PCR
Shipping Format and Condition	Lyophilized powder at room temperature.

Optimal dilutions should be determined by each laboratory for each application. The listed dilutions are for recommendation only and the final conditions should be optimized by the ender users! This product is sold for **Research Use Only**