

Product:	Taq-Pro Red™ DNA Polymerase
Catalogue No:	CB-4060-7 500u CB-4060-8 2500u
Description:	<p>Research carried out in 1981 on <i>Thermus Aquaticus</i>⁽¹⁾, led to the isolation of Taq-Pro, a DNA Polymerase which can be used in primary extension reactions, for generating DNA fragments having A overhangs on 3' ends (suitable for T/A cloning). Taq-Pro Red differs from our other product, Taq-Pro, solely in having a red dye added, to assist readily in identifying reactions to which enzyme has been added. Further, no loading buffer is needed with Taq-Pro Red when, for analysis purposes, a reaction is loaded on to agarose gel. The dye is inert, so as to have no effect on reaction conditions.</p> <p>To make certain that the assay is sufficiently dense to allow loading on to the gel, it is necessary to use at least 1.5units/50µl reaction. Taq-Pro Red is supplied at low temperature, but owing to its stability, can be handled at room temperature.</p>
Storage buffer:	20mM Tris-HCl, pH 7.5, 100mM NaCl, 0.1mM EDTA, 2mM DTT, 50% Glycerol, and 0.1% Tween-20.
Reaction buffer:	NH ₄ Buffer (10X): 160mM (NH ₄) ₂ SO ₄ , 670mM Tris-HCl (pH 8.8 at 25°C), 0.1% Tween-20.
Mg⁺⁺ Stock solution:	50mM MgCl ₂ (suggested final concentration 1.5mM-4mM).
Storage Conditions of 10x NH₄ Buffer	Repeated freeze-thaw cycles will affect the stability of Buffer. The Buffer will remain stable at +4°C for a minimum of one month, or -20°C for at least 6 months.
Unit definition:	One unit is defined as the amount that incorporates 10nmoles of dNTP's into acid insoluble form in 30 minutes at 72°C under the following assay conditions: 25mMTAPS (tris-(hydroxymethyl)-methyl-amino-propanesulfonic acid, sodium salt) pH 9.3 (at 25°C); 50mM KCl; 2mM MgCl ₂ ; 1mM β-mercaptoethanol 200µM each dATP, dGTP, dTTP; 100µM dCTP (a mix of unlabelled and α-[³² P]-labelled); 12.5 µg activated salmon sperm DNA in a final volume of 50 µl.
Associated activities:	Endonuclease and exonuclease activities were not detected.
Storage temperature:	Taq-Pro Red should be stored at -20°C in a constant-temperature freezer. This will ensure the continued stability of the product.
Batch details:	Batch No: See vial Units per vial: See vial Concentration: See vial
References:	(1) Kaledin, A.S., Slyuisarenko, A.G. and Gorodetskii, S.I. (1981) Biokhimiya 46 , 1576

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This certificate is a declaration of analysis at the time of manufacture