

PCR Reagents



CATALOG
NUMBER

195303 **LYSOZYME** 1 g
0°C [9001-63-2] 5 g
(Muramidase) 25 g
From Chicken Eggwhite
Type VI
Molecular Biology Reagent
3X Crystallized
Salt-Free, Albumin-Free
Lyophilized
Activity: ~60,000 units/mg protein
Unit Definition: one unit will produce a decrease in A_{450} of 0.001 per minute at pH 6.24 and 25°C using *Micrococcus lysodeikticus* as substrate.

150208 **NEUTRALASE™, GRADE I** 10 KU
0°C (Neutral Protease) 25 KU
From *Streptomyces griseus* 50 KU
A neutral, non-specific protease.
Activity: Approx. 1,000,000 PU/gm
Unit Definition: One PU is the amount of enzyme that will liberate folin-positive amino acids and peptides equivalent to 1 µg of tyrosine within 1 minute at pH 7.5 and 40°C, using casein as a substrate.
This enzyme is most active at neutral pH. Allows isolation of double-stranded DNA in high yield without the use of phenol. Digests almost any protein to free amino acid without decomposition. Useful in cell culture work to break down tissue cell matrix without damaging individual cells (e.g. isolation of chondrocytes).

152341 **NEUTRALASE™, GRADE II** 1 g
0°C (Neutral Protease) 5 g
From *Streptomyces griseus* 10 g
Activity: Approx. 250,000 PU/gm 50 g
Unit Definition: One PU is the amount of enzyme that will liberate folin-positive amino acids and peptides equivalent to 1 µg of tyrosine within 1 minute at pH 7.5 and 40°C, using casein as a substrate.

150209 **PROTEASE** 100 U
0-5°C [9001-92-7] 500 U
Alkaline 1 KU
From *Streptomyces griseus*
Lyophilized powder
Activity: 15-20 units/mg solid
Unit Definition: One unit will hydrolyze casein to produce peptide equivalent to 1.0 µmole of tyrosine per minute at 30°C and pH 11.0.
This protease is approx. twice as active as most proteases at pH 11, compared to the typical assay conditions of pH 7.5 and 37°C.

193625 **20S PROTEASOME** 500 µg
0°C **Recombinant**
Expressed in *E. coli*
A threonine protease with two distinct endopeptidase activities hydrolyzing proteins on the carboxyl side of hydrophobic and acidic amino acid residues (chymotrypsin-like and peptidylglutamyl-peptide hydrolase activities).
Activity: chymotrypsin-like activity: hydrolysis of Suc-Ala-Ala-Phe-AMC yields 1.2 nmol of 7-amino-4-methylcoumarin (AMC) per minute per mg protein.
Peptidylglutamyl-peptide hydrolase activity: hydrolysis of CBZ-Leu-Leu-Glu-β-NA yields 8.9 nmol of β-naphthylamine per minute per mg protein.
Unit Definition: one unit is the amount of enzyme that hydrolyzes one nmol of peptide in one minute at 60°C.
Ref.: Maupin-Furlow, J.A. and Ferry, J.G., *J. Biol. Chem.*, **270**, 28,617-28,622 (1995).

CATALOG
NUMBER

193981 **PROTEINASE K** 5 mg
0-5°C [39450-01-6] 10 mg
From *Tritirachium album* 25 mg
Molecular Biology Reagent 100 mg
Chromatographically Purified 500 mg
Suitable for both protein and nucleic acid isolation. Exhibits proteolytic activity on proteins, peptides, glycoproteins, amides and esters. Also active with nitroanilides of amino acids with protected amino groups, excluding arginine. Useful in the isolation of DNA and RNA, in the analysis of membrane structures and protein structure.
Activity: 10-30 units per mg protein.
Unit Definition: one unit is the amount of enzyme which liberates 1 µmol of Folin-positive amino acids per minute at pH 7.5 and 35°C, using hemoglobin as substrate.
Protein Content: >80%
RNase: < 5 x 10⁻⁴ U/mg
DNase: < 5 x 10⁻⁴ U/mg

193980 **RIBONUCLEASE A** 10 mg
0°C [9001-99-4] 50 mg
From **Bovine Pancreas** 250 mg
E.C. 2.7.7.16 500 mg
Molecular Biology Reagent 1 g
Chromatographically Purified
Lyophilized powder
Salt-free and protease-free
Activity: ≥70 Kunitz units/mg
Unit Definition: one unit causes the hydrolysis of RNA at a rate such that the velocity constant (k) equals 1 at 25°C and pH 5.0

101076 **RIBONUCLEASE A** 100 mg
0°C [9001-99-4] 250 mg
From **Beef Pancreas** 1 g
Prepared from aggregate-free RNase; Lyophilized;
Activity: 50 Kunitz units/mg.
Free of phosphate and protease; any aggregates can be converted to monomers.
Ref.: *J. Biol. Chem.*, **240**, 3868 (1965).

PCR REAGENTS

194799 **ACETAMIDE** 10 g
RT [60-35-5] 50 g
(Acetic Acid Amide)
Molecular Biology Reagent
A 5% (w/v) aqueous acetamide added to PCR mixtures reduces non-specific annealing of primers and prevents amplification of replication artifacts.
Ref.: Reyesenbach, A.L., *Appl. Environ. Microbiol.*, **58**, 3417 (1992).
C₂H₅NO MW 59.07

194800 **CHLOROFORM** 1 vial
RT [67-66-3] 5 vials
Molecular Biology Reagent
Purity: 99+%
Used for PCR aqueous phase recovery overlaid with mineral oil.
Each vial contains 1.5 ml.
CHCl₃ MW 119.4

Molecular Biology