

KRISHZYME™ Enzymes for mRNA Vaccine

Alkaline Phosphatase

This product is the Alkaline Phosphatase recombinantly expressed in *E. coli*. It is capable of non-specific catalysis of the dephosphorylation of the phosphomonoester bond of DNA and RNA 5' and 3' termini, as well as catalysis of the dephosphorylation of NTPs and dNTPs.

Cat No	Composition	Storage Temperature (°C)	Product ID/Specification	
			KNB9010S (0.5 KU)	KNB9010L (2.5 KU)
KNB9010-I	Alkaline Phosphatase (5 U/ul)	-20	100 ul	500 ul
KNB9010-II	Reaction Buffer	-20	1.5 ml	15 ml

1X Reaction buffer contains 50mM Bis-Tris-Propane-HCL, pH6, 1mM MgCl₂ and 0.1mM ZnCl₂

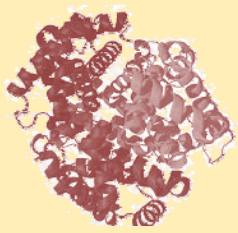
Product Properties

Optimal reaction temperature: 37°C

Definition of active unit: 1 active unit is defined as the amount of enzyme needed to de-phosphorylate 1 ug of pUC19 plasmid vector in 30m at 37°C (dephosphorylation is defined as > 95% inhibitory action on re-cyclization in the self-linking reaction, and measured through transformation into *E. coli*.)

Quality Control

Purity ≥ 95%,
Residual Host Cell DNA ≤ 100pg/mg,
Residual Host Cell Protein ≤ 50 ppm,
Residual Endotoxin ≤ 10EU/mg,
No residual RNase, endonuclease, exonuclease or protease,
Germ-free, Pathogen-free.



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Product Features

Dephosphorylation of DNA and RNA 5' and 3' termini. Can be used for DNA dephosphorylation before terminus-labelling by T4 polynucleotide kinase. Used for treatment of dNTPs in PCR reactions prior to sequencing or SNP analysis. Reducing the immunogenicity of mRNA in mammals by dephosphorylating mRNA. Avoiding re-cyclization during the cloning process by dephosphorylating DNA cloning vector. No BSA system, less heat source contamination.

Product Information

Cat No	Composition	Specification
KNB9010	Alkaline Phosphatase	0.5 KU, 2.5 KU

Other KRISHZYME mRNA Vaccine Enzymes Available

Cat No	Product Particulars
KNB9001	T7 RNA Polymerase
KNB9003	mRNA Cap-2'-O-Methyltransferase
KNB9004	Poly(A) Polymerase
KNB9005	RNase inhibitor
KNB9006	DNase I
KNB9007	RNase III
KNB9008	T4 RNA ligase
KNB9009	Pyrophosphatase Inorganic
KNB9010	Alkaline Phosphatase
KNB9011	EcoR I