

KRISHZYME™ Enzymes for mRNA Vaccine

T4 RNA Ligase

This product is the ATP-dependent T4RNA Ligase I recombinantly expressed in *E. coli*. It can catalyze oligonucleotide, single-stranded RNA and DNA intermolecular / intramolecular 5'-PO₄ and 3'-OH to form phosphodiester bond.

Item No.	Composition	Storage Temperature (°C)	Product ID / Specification	
			KNB9008S (1KU)	KNB9008L (10KU)
KNB9008-I	T4 RNA Ligase	-20	0.1 ml	1 ml
KNB9008-II	10X Reaction Buffer	-20	1.5 ml	15 ml
KNB9008-III	AdENosine-5'-Triphosphate (ATP)	-20	0.2 ml	2 ml
KNB9008-IV	PEG 8000	-20	1 ml	10 ml

1x Reaction buffer contains 50mM Tris-HCL (pH7.5), 10mM MgCl₂ and 1mM DTT.

Product Properties

Optimal Reaction Temperature: 37°C

Definition of Active Unit: active unit is defined as the amount of enzyme needed to convert 1nM 5'-[³²P]rA₁₆ into anti-phosphoric acid form in 30 min at 37°C.

Quality Control

Purity ≥ 95%

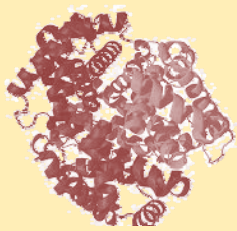
Residual Host Cell DNA ≤ 100pg/mg

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 Usage

- RNA 3' terminus labelling (using cytidine-3',5'-[α -32] diphosphate)
- Connecting RNAs
- Synthesizing oligoribonucleotide and oligodeoxyribonucleotide
- Specific modification of tRNA
- Connecting oligodeoxyribonucleotide to single-stranded cDNA to realize
- 5'RACE (rapid amplification of cDNA termini)
- Site-specific generation of multiplex PCR primer

Product Information

Cat No	Composition	Specification
KNB9008	T4 RNA Ligase	1 KU, 10 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