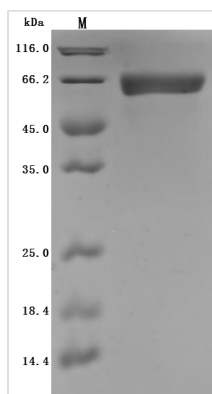




Recombinant Rat Intestinal-type alkaline phosphatase 1 (Alpi) (Active)

Product Code	CSB-MP001627RA
Abbreviation	Recombinant Rat Alpi protein (Active)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P15693
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 µm filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Biological Activity	Unit Definition:One unit is defined as the amount of enzyme required to cleave 1 nmol p-nitro-phenylphosphate(pNPP), in 1 minute at 37°C, pH10.0.The specific activity is >10370.37 U/mg.
Purity	Greater than 95% as determined by SDS-PAGE.
Sequence	VIPVEEENPVFWNQKAKEALDVAKKLQPIQTS AKNLILFLGDGMGVPTVTATRIL KGQLGGHLGPETPLAMDHFPFTALSKTYNVDRQVPDSAGTATAYLCGVKANY KTIGVSAAARFNQCNSTFGNEVFSVMHRAKKAGKSGVGVTTTRVQHASPAGT YAHTVNRDWYSDADMPSSALQEGCKDIATQLISNMDIDVILGGGRKFMFPKGT PDPEYPGDSDQSGVRLDSRNLVEEWLAKYQGTRYVWNREQLMQASQDPAV TRLMGLFEPTMKEYDVNRNASADPSLAEMTEVAVRLLSRNPQGFYLFVEGGRI DQGHAGTAYLALTEAVMFDSAIEKASQLTNEKDTLTLITADHSHVFAFGGYTL RGTSIFGLAPLNAQDGKSYTSILYGNPGYVLNSG NRPNVTDAESGDVNYKQ QAAVPLSSETHGGEDVAIFARGPQAHLVHGVQE QNYIAHVMAFAGCLEPYTD CGLAPPADENRPTTPVQN
Source	Mammalian cell
Target Names	Alpi
Expression Region	21-511aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged
Mol. Weight	55.9 kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

To create active recombinant rat intestinal-type alkaline phosphatase (Alpi) in mammalian cells, the gene region encoding amino acids 21-511 of the rat Alpi protein is inserted into an expression vector containing an N-terminal 10xHis-tag. The recombinant vector is then transfected into mammalian cells using transfection techniques. The transfected cells are cultured to allow the expression of the recombinant Alpi protein. After expression, the cells are collected, and the recombinant protein is purified from the cell lysate. The purified recombinant Alpi protein demonstrates a purity exceeding 95% based on SDS-PAGE analysis. The specific activity of the recombinant Alpi protein is measured to be greater than 10370.37 U/mg, confirming its enzymatic function. Additionally, the endotoxin level of the recombinant Alpi protein is determined to be less than 1.0 EU/μg using the LAL method.

Endotoxin

Less than 1.0 EU/ug as determined by LAL method.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.