



Recombinant Protein Technical Manual

**Recombinant Human Alkaline Phosphatase/ALPI
Protein (His Tag)(Active)**
RPES4373

Product Data:

Product SKU: RPES4373

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: P09923

Protein Information:

Molecular Mass: 54 kDa

AP Molecular Mass: 66 kDa

Tag: C-His

Bio-activity: Measured by its ability to cleave a fluorogenic substrate, 4-Methylumbelliferyl phosphate (4-MUP). The specific activity is > 1,000 pmoles/min/µg.

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: IAP

Immunogen Information:

Sequence: Met 1-Asp 503

Background:

ALPI encodes for intestinal phosphatase alkaline, a brush border metalloenzyme that hydrolyses phosphate from the lipid A moiety of lipopolysaccharides and thereby drastically reduces Toll-like receptor 4 agonist activity. ALPI mutations impaired either stability or catalytic activity of ALPI and rendered it unable to detoxify lipopolysaccharide-dependent signalling. ALPI mutations should be included in screening for monogenic causes of inflammatory bowel diseases and lay the groundwork for ALPI-based treatments in intestinal inflammatory disorders.