Recombinant PERF protein (His tag)

Catalog Number	546773
Synonyms	P1; Cytolysin; Lymphocyte pore-forming protein; PFP
Species	Human
Expression System	E. coli
Accession	P14222
Molecular Weight	Predictes a molecular mass of 32.72 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	280-555
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 280-555 aa (P14222) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Perforin-1 (PRF1) Fragment (aa 280-555) is a highly purified protein designed for studying the EGF-like and C2 functional domains. This fragment serves as an essential tool for investigating pore-forming mechanisms and granzyme-mediated apoptosis in immune defense and autoimmune research. Perforin-1 is a pore-forming protein critical for granzyme-mediated programmed cell death, playing a key role in immune defense against virus-infected or neoplastic cells. It facilitates cytolysis and apoptosis by forming calcium-dependent pores in target cell membranes, enabling the passage of cytotoxic granzymes and cationic cargo proteins. The protein is stored in cytolytic granules of lymphocytes, secreted into intercellular clefts, and inserts into target cell membranes to exert its function. Its activity is implicated in transplant rejection and autoimmune diseases, underscoring its importance in immunological studies.