Recombinant ECP protein (His tag)

Catalog Number	542123
Synonyms	ECP; Ribonuclease 3; RNase 3
Species	Human
Expression System	E. coli
Accession	P12724
Molecular Weight	Predictes a molecular mass of 17.17 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	28-160
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 28-160 aa (P12724) 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 Eosinophil Cationic Protein (ECP) Fragment (28-160) is a high-purity, stable protein designed for structural and biochemical research. This fragment retains key functional regions, offering a soluble and reliable tool for studying ECP's cytotoxic and antimicrobial activities. Eosinophil Cationic Protein (ECP), also known as Ribonuclease 3, is a multifunctional protein with cytotoxin and helminthotoxin properties, along with low-efficiency ribonuclease activity. It exhibits broad antibacterial effects, including depolarization of cytoplasmic membranes in both Gram-negative and Gram-positive bacteria, and induces morphological changes such as outer membrane detachment and cell shape alteration in E. coli. ECP is secreted and localized in the matrix of eosinophil large specific granules, where it is released upon immune activation, playing a critical role in host defense mechanisms.