Recombinant MEFV protein (His tag)

Catalog Number	541757
Synonyms	Marenostrin
Species	Human
Expression System	E. coli
Accession	O15553
Molecular Weight	Predictes a molecular mass of 48.31 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	373-781
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 373-781 aa (O15553) 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 Pyrin (Marenostrin) Fragment (373-781) is a high-purity protein encompassing the critical B30.2/SPRY domain. This fragment serves as an essential tool for investigating innate immunity, inflammasome regulation, and autophagy mechanisms, enabling targeted studies of domain-specific functions in inflammatory pathways. Pyrin, encoded by the MEFV gene, is a key regulator of innate immunity and inflammatory responses. It coordinates autophagic machinery by assembling components like ULK1, Beclin 1, ATG16L1, and ATG8 family members, acting as an autophagy receptor that degrades inflammasome components such as CASP1, NLRP1, and NLRP3 to prevent excessive inflammation. Pyrin also functions as an innate immune sensor, triggering PYCARD/ASC speck formation, caspase-1 activation, and production of IL1B and IL18, while mediating pyroptosis, necroptosis, and apoptosis (PANoptosis) during bacterial infections. It localizes to the cytoplasm, cytoskeleton, ruffles, lamellipodia, nucleus, and autophagosomes, associating with microtubules and actin filaments. The provided fragment (373-781) includes the B30.2/SPRY domain, which is instrumental for studying these specific functional roles in immune regulation.