Recombinant PERM protein (His tag)

Catalog Number	539697
Synonyms	MPO
Species	Human
Expression System	E. coli
Accession	P05164
Molecular Weight	Predictes a molecular mass of 54.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 55 kDa band.

Product Information

Sequence Region	279-745
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 279-745 aa (P05164) 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 Myeloperoxidase (MPO) Fragment (279-745) is a high-quality protein product designed for structural and functional studies. This 467-amino acid fragment, computationally selected for stability and solubility, retains key domains of MPO, enabling researchers to investigate its enzymatic activity and role in immune defense mechanisms with precision and reliability. Myeloperoxidase (MPO) is a critical enzyme in the host defense system of polymorphonuclear leukocytes, contributing to microbicidal activity against a broad spectrum of pathogens. It catalyzes the production of hypohalous acids, such as hypochlorous acid, and other toxic intermediates that enhance the antimicrobial capacity of these cells. Additionally, MPO mediates the proteolytic cleavage of alpha-1-microglobulin to form t-alpha-1-microglobulin, which inhibits oxidation of low-density lipoprotein particles and helps limit vascular damage. The enzyme is localized to lysosomes, where it supports its role in immune responses. This recombinant fragment (279-745) encompasses essential functional regions, making it an ideal tool for exploring MPO's biochemical properties and implications in health and disease.