Recombinant PGRC1 protein (His tag)

Catalog Number	541697
Synonyms	mPR; Dap1; IZA
Species	Human
Expression System	E. coli
Accession	O00264
Molecular Weight	Predictes a molecular mass of 18.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	44-195
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 44-195 aa (O00264) 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 PGRMC1 (44-195) Fragment: A high-purity protein fragment encompassing the cytochrome b5 heme-binding domain (residues 72-171) of Membrane-associated progesterone receptor component 1 (mPR). This 152-amino acid fragment is an essential tool for investigating heme homeostasis, progesterone binding, and cytochrome interactions in vitro. The full-length PGRMC1 protein is a multifunctional membrane-associated receptor in Homo sapiens, serving as a component of a progesterone-binding complex and playing a critical role in intracellular heme chaperoning. It regulates heme synthesis by interacting with ferrochelatase (FECH) and acts as a heme donor for hemoproteins. PGRMC1 also forms a ternary complex with TMEM97 and LDLR to enhance low-density lipoprotein internalization and is required for maintaining uterine architecture and female reproductive lifespan. It localizes to microsome membranes, the smooth endoplasmic reticulum, mitochondrial outer membrane, and can be secreted, with presence in lipid rafts under serum-starved conditions, reflecting its diverse cellular roles in signaling and metabolism.