Recombinant PTGR3 protein (His tag)

Catalog Number	548773
Synonyms	PRG-3; Zinc-binding alcohol dehydrogenase domain-containing protein 2
Species	Human
Expression System	E. coli
Accession	Q8N4Q0
Molecular Weight	Predictes a molecular mass of 41.80 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-377
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-377 aa (Q8N4Q0) 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 Prostaglandin reductase 3 (PRG-3) fragment (amino acids 1-377) is a high-purity protein designed for structural and biochemical studies. This fragment encompasses the full-length protein's functional domain, offering a stable and soluble unit ideal for investigating prostaglandin metabolism and regulatory functions. Prostaglandin reductase 3 (PRG-3), encoded by the PTGR3 gene in Homo sapiens, functions as a 15-oxo-prostaglandin 13-reductase (EC 1.3.1.48) with highest catalytic efficiency towards 15-keto-PGE2-alpha. It plays a critical role in prostaglandin metabolism by reducing 15-keto prostaglandins such as 15-keto-PGE1, 15-keto-PGE2, and their alpha variants. Additionally, PRG-3 overexpression represses PPARG transcriptional activity and inhibits adipocyte differentiation, highlighting its significance in lipid metabolism and cellular differentiation processes. The protein is localized to peroxisomes, where it contributes to oxidative metabolic pathways.