Recombinant GDPD2 protein (His tag)

Catalog Number	548297
Synonyms	Glycerophosphodiester phosphodiesterase 3; Glycerophosphodiester phosphodiesterase domain-containing protein 2; Osteoblast differentiation promoting factor
Species	Human
Expression System	E. coli
Accession	Q9HCC8
Molecular Weight	Predictes a molecular mass of 33.53 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	210-490
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 210-490 aa (Q9HCC8) 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	Introducing the recombinant human GDPD2 protein fragment (residues 210-490), a highly specific tool for studying glycerophosphoinositol inositolphosphodiesterase activity. This fragment fully encompasses the functional GP-PDE domain, making it ideal for investigating the enzymatic mechanisms and domain-specific functions of this osteoblast differentiation-promoting factor. The full-length Glycerophosphoinositol inositolphosphodiesterase GDPD2 (EC 3.1.4.43) is a human enzyme with specific glycerophosphoinositol inositolphosphodiesterase activity, selectively hydrolyzing glycerophosphoinositol without acting on related substrates such as glycerophosphoinositol 4-phosphate or glycerophosphocholine. This enzyme accelerates osteoblast differentiation and growth programs and may participate in actin cytoskeleton remodeling. GDPD2 localizes to the cell membrane as a multi-pass membrane protein and is also found in the cytoplasm, particularly associated with the cytoskeleton, where it colocalizes with actin structures, supporting its potential role in cellular structural organization.