Recombinant PTHD4 protein (His tag)

Catalog Number	549254
Synonyms	p53-regulated patched protein
Species	Human
Expression System	E. coli
Accession	Q6ZW05
Molecular Weight	Predictes a molecular mass of 20.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	62-229
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 62-229 aa (Q6ZW05) 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 Patched domain-containing protein 4 (PTCHD4) fragment (residues 62-229) is a high-purity, soluble protein designed for structural and biochemical studies. This 168-amino acid fragment, derived from the p53-regulated patched protein, offers a stable and functional unit ideal for investigating its role in modulating hedgehog signaling pathways. The full-length Patched domain-containing protein 4 (PTCHD4) is a multi-pass membrane protein in humans that functions as a repressor of canonical hedgehog signaling. It antagonizes the effects of SMO, leading to down-regulation of key hedgehog target genes such as GLI1, PTCH1, and PTCH2, as demonstrated in cellular studies. This protein's localization to the membrane underscores its involvement in critical signaling pathways, making it a valuable target for research in developmental biology and disease mechanisms.