Recombinant GPC3 protein (His tag)

Catalog Number	540022
Synonyms	GTR2-2; Intestinal protein OCI-5; MXR7
Species	Human
Expression System	E. coli
Accession	P51654
Molecular Weight	Predictes a molecular mass of 37.86 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	33-350
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 33-350 aa (P51654) 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 Glypican-3 (GPC3) Fragment (residues 33-350) is a high-purity, soluble protein designed for structural and biochemical studies. This 318-amino acid fragment retains key functional regions of the full-length protein, offering researchers a reliable tool to investigate Glypican-3's roles in signaling pathways, cellular regulation, and development. Glypican-3 is a cell surface proteoglycan that plays critical roles in regulating multiple signaling pathways. It negatively regulates the hedgehog signaling pathway by competing with the PTC1 receptor for hedgehog protein binding, leading to internalization and degradation of the complex. Conversely, it positively regulates both canonical and non-canonical Wnt signaling pathways by binding to Frizzled receptors and enhancing Wnt ligand interactions. The protein also modulates BMP-mediated skeletal development and renal branching morphogenesis, inhibits DPP4 dipeptidyl peptidase activity, and interacts with CD81 to influence transcriptional regulation. Glypican-3 is localized to the cell membrane via a GPI-anchor on the extracellular side, positioning it to mediate crucial cell-surface interactions during development and cellular signaling processes.