Recombinant PIM2 protein (His tag)

Catalog Number	541428
Synonyms	Pim-2h
Species	Human
Expression System	E. coli
Accession	Q9P1W9
Molecular Weight	Predictes a molecular mass of 35.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	1-311
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-311 aa (Q9P1W9) 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 Serine/threonine-protein kinase pim-2 (Pim-2h) Fragment (aa 1-311) is a high-purity protein encompassing the complete protein kinase domain. This fragment is engineered to facilitate studies on cell survival, proliferation, and oncogenic signaling pathways, serving as an essential tool for kinase activity assays, inhibitor screening, and mechanistic research in cancer biology. Serine/threonine-protein kinase pim-2, encoded by the PIM2 gene in Homo sapiens, functions as a proto-oncogene that promotes cell survival and proliferation through multiple mechanisms. It enhances MYC transcriptional activity by phosphorylation-mediated stabilization, regulates cap-dependent protein translation independently of mTORC1, and mediates survival signaling via phosphorylation of the pro-apoptotic protein BAD. Additionally, PIM2 supports cell cycle progression by phosphorylating CDKN1A and CDKN1B, and positively influences the I-kappa-B kinase/NF-kappa-B cascade and chondrocyte survival. These roles underscore its significance in oncogenesis and cellular homeostasis, making it a critical target for cancer research.