Recombinant SHB protein (His tag)

Catalog Number	540345
Species	Human
Expression System	E. coli
Accession	Q15464
Molecular Weight	Predictes a molecular mass of 14.34 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	399-509
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 399-509 aa (Q15464) 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 SHB (SH2 domain-containing adapter protein B) Fragment (aa 399-509) is a high-purity protein designed for studying the specific functions of the SH2 domain. This fragment serves as an essential tool for researchers investigating signal transduction pathways, receptor interactions, and cellular signaling mechanisms in various biological contexts. SHB is an adapter protein that regulates multiple signal transduction cascades by linking activated receptors to downstream signaling components. It plays a critical role in angiogenesis through regulation of FGFR1, VEGFR2, and PDGFR signaling pathways. Additionally, SHB is involved in T-cell antigen receptor (TCR) signaling, interleukin-2 signaling, apoptosis, and neuronal differentiation by mediating basic-FGF and NGF-induced signaling cascades. It also regulates IRS1 and IRS2 signaling in insulin-producing cells. The protein is primarily localized in the cytoplasm and associates with membrane lipid rafts upon TCR stimulation, functioning as a peripheral membrane protein on the cytoplasmic side of the cell membrane.