Recombinant DECA protein (His tag)

Catalog Number	532579
Synonyms	Protein DPP-C
Species	Drosophila melanogaster
Expression System	E. coli
Accession	P07713
Gene ID	33432
Molecular Weight	Predictes a molecular mass of 13.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	485-588
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 485-588 aa (P07713) 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 Protein decapentaplegic (Protein DPP-C) fragment (residues 485-588) from Drosophila melanogaster, a stable and soluble unit ideal for structural and biochemical studies. This fragment retains key properties for investigating morphogen signaling and developmental patterning mechanisms. Protein decapentaplegic (Protein DPP-C), encoded by the dpp gene in Drosophila melanogaster, is a secreted morphogen essential for multiple developmental processes. It functions during oogenesis in eggshell patterning and dorsal/ventral axis specification in embryos, where it antagonizes binding to sog and tsg to specify dorsal ectoderm and amnioserosa cell fate. The protein also induces visceral mesoderm and heart formation, supports dorsal closure and hindgut patterning, and acts as a long-range morphogen in imaginal disk development—driving morphogenetic furrow progression in the eye, patterning the wing disk along anterior/posterior and proximal/distal axes, and ensuring wing epithelial architecture. Additionally, it directs tracheal cell migration and fusion cell fate specification, maintains germline stem cells in the ovary, and signals via type I receptors (tkv, sax) and type II receptor (punt) to activate or repress target genes. As a secreted protein, it is internalized by receptor-mediated endocytosis, highlighting its role in extracellular signaling cascades critical for viability and tissue patterning.