Recombinant FLRT1 protein (His tag)

Catalog Number	539120
Synonyms	Fibronectin-like domain-containing leucine-rich transmembrane protein 1
Species	Human
Expression System	E. coli
Accession	Q9NZU1
Molecular Weight	Predictes a molecular mass of 38.53 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	49-375
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 49-375 aa (Q9NZU1) 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 FLRT1 (Leucine-rich repeat transmembrane protein FLRT1) fragment (aa 49-375) is a high-purity protein designed for studying the LRRNT domain's role in fibroblast growth factor signaling, neurite outgrowth, and cell adhesion mechanisms. This 327-amino acid fragment serves as an essential tool for investigating domain-specific functions in neuronal development and intercellular communication. FLRT1 (Fibronectin-like domain-containing leucine-rich transmembrane protein 1) is a single-pass transmembrane protein that participates in fibroblast growth factor-mediated signaling cascades leading to MAP kinase activation. It promotes neurite outgrowth through FGFR1-mediated pathways, enhancing both neurite number and length. The protein also facilitates cell-cell adhesion and guidance via interactions with ADGRL1/LPHN1 and ADGRL3 receptors. FLRT1 localizes to multiple cellular compartments including the cell membrane, endoplasmic reticulum, cytoplasmic vesicles, perinuclear regions, focal adhesions, and neuronal projections. Proteolytic processing generates a secreted ectodomain, indicating dual membrane-bound and soluble functions. Its presence at neurite termini and intercellular contacts underscores its importance in neural connectivity and developmental processes.