Recombinant EFNA1 protein (His tag)

Catalog Number	542178
Synonyms	EPH-related receptor tyrosine kinase ligand 1; LERK-1; Immediate early response protein B61; Tumor necrosis factor alpha-induced protein 4; TNF alpha-induced protein 4
Species	Human
Expression System	E. coli
Accession	P20827
Molecular Weight	Predictes a molecular mass of 17.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	19-150
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 19-150 aa (P20827) 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 Ephrin-A1 (EFNA1) Fragment (aa 19-150) is a high-quality, soluble protein designed for structural and biochemical studies. This 132-amino acid fragment retains key functional characteristics of the full-length protein, offering researchers a reliable tool for investigating Eph receptor signaling, angiogenesis, and neuronal development. Ephrin-A1 is a GPI-anchored cell surface ligand that plays crucial roles in neuronal, vascular, and epithelial development through bidirectional signaling with Eph receptor tyrosine kinases. It functions promiscuously with multiple Eph receptors on adjacent cells, mediating contact-dependent signaling critical for cell migration, repulsion, and adhesion. Ephrin-A1 is particularly important in angiogenesis and tumor neovascularization, where it activates EPHA2 receptor tyrosine phosphorylation, leading to internalization and degradation, thereby exerting anti-oncogenic effects in various cancers. The protein exists in both membrane-bound (GPI-anchored) and secreted forms, with the secreted form generated through cleavage. Its ability to recruit VAV2, VAV3, and PI3-kinase p85 subunit following EPHA2 phosphorylation is essential for RAC1 GTPase activation and vascular endothelial cell migration and assembly.