Recombinant ITB4 protein (His tag)

Catalog Number	544432
Synonyms	GP150; CD antigen CD104
Species	Human
Expression System	E. coli
Accession	P16144
Molecular Weight	Predictes a molecular mass of 23.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	1527-1729
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 1527-1729 aa (P16144) 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 Integrin beta-4 (GP150/CD104) Fragment (aa 1527-1729) is a high-purity protein designed for targeted research on the Fibronectin type-III 3 domain. This fragment serves as a key tool for investigating laminin receptor activity, hemidesmosome structure, and signaling pathways involving NRG1, IGF1, and IGF2, enabling precise functional studies in epithelial biology. Integrin beta-4, encoded by the ITGB4 gene in Homo sapiens, forms a complex with Integrin alpha-6 (ITGA6:ITGB4) that functions as a receptor for laminin. It plays a critical structural role in hemidesmosomes of epithelial cells, essential for maintaining keratinocyte polarity and motility. The full-length protein is localized to the cell membrane as a single-pass type I membrane protein and is enriched at cell junctions like hemidesmosomes, where it colocalizes with DST at the leading edge of migrating keratinocytes. ITGA6:ITGB4 binds to NRG1 (via its EGF domain), IGF1, and IGF2, facilitating crucial signaling pathways that regulate cellular processes, underscoring its importance in epithelial integrity and signaling cascades.