Recombinant TVA3 protein (His tag)

Catalog Number	550795
Species	Human
Expression System	E. coli
Accession	A0A0B4J244
Molecular Weight	Predictes a molecular mass of 12.20 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	21-114
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 21-114 aa (A0A0B4J244) 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 T cell receptor alpha variable 3 (TRAV3) fragment (amino acids 21-114) from Homo sapiens, designed for structural and functional studies of T cell receptor-mediated immune recognition. This stable, soluble fragment retains key variable domain features essential for antigen binding and immune response investigations. T cell receptor alpha variable 3 (TRAV3) encodes the V region of the T cell receptor alpha chain variable domain, which is critical for antigen recognition in adaptive immunity. Alpha-beta T cell receptors on T lymphocytes specifically recognize peptide-major histocompatibility complexes displayed by antigen presenting cells, initiating T cell activation through intracellular signaling cascades involving TR-CD3 clustering, LCK phosphorylation, and downstream pathways including calcium signaling, MAPK, and NF-κB. This process is fundamental to T cell development in the thymus and peripheral immune responses. The full-length protein is localized to the cell membrane, where it functions in immune surveillance. The selected fragment (amino acids 21-114) represents a computationally predicted stable domain suitable for investigating T cell receptor structure-function relationships.