Recombinant TVA39 protein (His tag)

Catalog Number	550288
Species	Human
Expression System	E. coli
Accession	A0A0B4J263
Molecular Weight	Predictes a molecular mass of 12.08 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	19-110
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 19-110 aa (A0A0B4J263) 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	This recombinant protein represents a stable, soluble fragment (amino acids 19-110) of the human T cell receptor alpha variable 39 (TRAV39), designed for structural and functional studies of T cell receptor-mediated immune recognition. The fragment encompasses the V region domain critical for antigen binding and T cell activation pathways. The full-length T cell receptor alpha variable 39 protein functions as the V region of the variable domain of the T cell receptor alpha chain, directly participating in antigen recognition. Alpha-beta T cell receptors are essential antigen-specific receptors present on T lymphocytes that recognize peptide-major histocompatibility complexes displayed by antigen-presenting cells. This recognition initiates T cell receptor-CD3 clustering and intracellular signaling cascades involving LCK phosphorylation, ZAP70 recruitment, and formation of the LAT signalosome, ultimately activating calcium, MAPK, and NF-kB pathways critical for T cell growth, differentiation, and adaptive immunity. The protein is localized to the cell membrane, where it interacts with antigen-MHC complexes to shape T cell receptor structural and functional avidity during immune responses.