Recombinant TVA2 protein (His tag)

Catalog Number	550287
Species	Human
Expression System	E. coli
Accession	A0A0B4J234
Molecular Weight	Predictes a molecular mass of 11.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	26-112
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 26-112 aa (A0A0B4J234) 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 and soluble fragment (residues 26-112) of the human T cell receptor alpha variable 2 (TRAV2), designed for structural and biochemical studies. It captures the essential V region domain critical for antigen recognition in T cell-mediated immunity. The full-length T cell receptor alpha variable 2 protein, encoded by the TRAV2 gene, functions as the V region of the variable domain in the T cell receptor alpha chain and is integral to antigen recognition. Alpha-beta T cell receptors are antigen-specific receptors essential for adaptive immune responses, present on T lymphocytes. They recognize peptide-major histocompatibility complexes displayed by antigen-presenting cells, initiating signaling cascades that lead to T cell activation, growth, and differentiation. This process involves TR-CD3 clustering, phosphorylation events, and activation of key pathways like calcium, MAPK, and NF-kB, ultimately shaping the T cell repertoire for effective immunity against pathogens. The protein is localized to the cell membrane, as supported by experimental evidence.