Recombinant TRDV3 protein (His tag)

Catalog Number	550566
Species	Human
Expression System	E. coli
Accession	A0JD37
Molecular Weight	Predictes a molecular mass of 12.54 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	19-113
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 19-113 aa (A0JD37) 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 delta variable 3 (TRDV3) fragment (amino acids 19-113) from Homo sapiens, engineered for stability and solubility to support structural and functional studies of gamma-delta T cell receptor-mediated immune responses. The full-length T cell receptor delta variable 3 (TRDV3) protein is a component of the gamma-delta T cell receptor (TR) complex, which plays a critical role in innate-like immunity by recognizing diverse self and foreign non-peptide antigens, such as lipids presented by CD1D and phosphoantigens via BTN3A1. Upon antigen binding, TRDV3 contributes to signaling cascades involving ITAM phosphorylation, ZAP70 activation, calcium mobilization, and ERK signaling, driving T cell expansion and effector functions. This receptor is generated through somatic V-(D)-J rearrangement, with diversity enhanced by exonuclease trimming and nucleotide additions. TRDV3 is localized to the cell membrane, where it facilitates rapid immune responses at epithelial boundaries for pathogen clearance and tissue repair.