Recombinant TRDC protein (His tag)

Catalog Number	548891
Species	Human
Expression System	E. coli
Accession	B7Z8K6
Molecular Weight	Predictes a molecular mass of 11.31 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	1-87
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 1-87 aa (B7Z8K6) 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 T cell receptor delta constant (TRDC) fragment (residues 1-87) is a high-purity protein designed for structural and functional studies. This soluble fragment retains key features of the native protein, making it ideal for investigating gamma-delta T cell receptor signaling, antigen recognition, and immune response mechanisms in a research setting. The T cell receptor delta constant (TRDC) protein is the constant region of the T cell receptor delta chain, essential for antigen recognition in gamma-delta T cells. These receptors recognize diverse self and foreign non-peptide antigens, such as lipids presented by CD1D and phosphoantigens via BTN3A1, triggering rapid innate-like immune responses critical for pathogen clearance and tissue repair. Upon antigen binding, TRDC participates in signaling cascades involving ITAM phosphorylation by LCK and FYN kinases, ZAP70 recruitment, and activation of downstream effectors like PLCG1, leading to calcium mobilization, ERK activation, and T cell differentiation. Gamma-delta T cell receptors exhibit unique diversity through somatic rearrangement of V, D, and J genes, including tandem D gene rearrangements and nucleotide additions. TRDC is localized to the cell membrane, where it functions within the TCR complex to mediate immune surveillance at epithelial boundaries.