Recombinant TR10A protein (His tag)

Catalog Number	544024
Synonyms	Death receptor 4; TNF-related apoptosis-inducing ligand receptor 1; TRAIL receptor 1; TRAIL-R1; CD antigen CD261
Species	Human
Expression System	E. coli
Accession	O00220
Molecular Weight	Predictes a molecular mass of 14.84 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	351-468
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 351-468 aa (O00220) 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 TNFRSF10A/TRAIL-R1 Death Domain Fragment (aa 351-468) - A precisely engineered protein fragment containing the complete Death domain of the Tumor Necrosis Factor Receptor Superfamily Member 10A, designed for targeted investigation of apoptosis signaling mechanisms and death receptor function. The full-length TNFRSF10A protein, also known as Death Receptor 4 or TRAIL Receptor 1, functions as a critical receptor for the cytotoxic ligand TNFSF10/TRAIL. Upon ligand binding, it initiates apoptosis through the formation of the death-inducing signaling complex (DISC), where the adapter molecule FADD recruits caspase-8 to the activated receptor, triggering a cascade of caspase activation. The protein also promotes NF-kappa-B activation and is primarily localized to the cell membrane as a single-pass type I membrane protein, with additional presence in membrane rafts and the cytosol. Membrane association requires palmitoylation. This recombinant fragment specifically encompasses the Death domain (aa 365-448), which is essential for the protein's apoptotic signaling function, making it an ideal tool for studying domain-specific mechanisms in programmed cell death pathways.