

**Synonym**

TNFRSF10A, TRAIL-R1, CD261, APO2, DR4

**Source**Human TRAIL R1, His Tag(TR1-H5228) is expressed from human 293 cells (HEK293). It contains AA Ala 24 - Asn 239 (Accession # [O00220-1](#)).

Predicted N-terminus: Ala 24

**Molecular Characterization**DR4(Ala 24 - Asn 239)  
O00220-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 24.8 kDa. The protein migrates as 20-23 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

&gt;90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

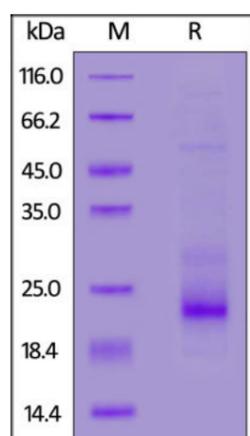
*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

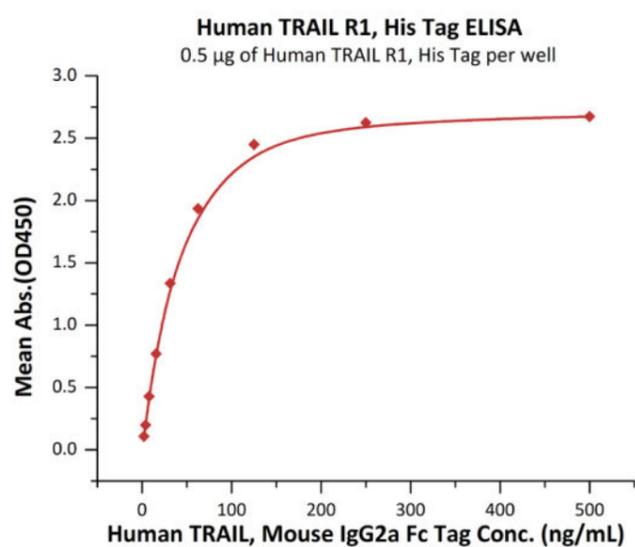
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

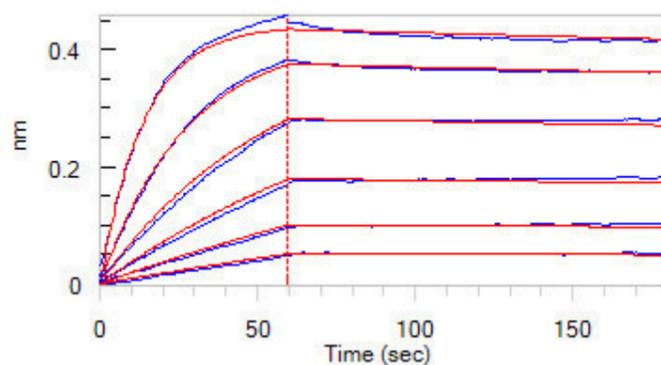
Human TRAIL R1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity-ELISA**



Immobilized Human TRAIL R1, His Tag (Cat. No. TR1-H5228) at 5 µg/mL (100 µL/well) can bind Human TRAIL, Mouse IgG2a Fc Tag (Cat. No. TRL-H5259) with a linear range of 2-63 ng/mL (QC tested).

### Bioactivity-BLI



Loaded Human TRAIL R1, His Tag (Cat. No. TR1-H5228) on HIS1K Biosensor, can bind Human TRAIL with an affinity constant of 0.583 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

### Background

Tumor necrosis factor receptor superfamily member 10A (TNFRSF10A) is also known as TNF-related apoptosis-inducing ligand receptor 1 (TRAIL-R1), Death receptor 4 (DR4), CD261 and APO2, which belongs to TNF superfamily. TRAILR1 / TNFRSF10A contains 1 death domain and 3 TNFR-Cys repeats. TNFRSF10A / DR4 is widely expressed and high levels are found in spleen, peripheral blood leukocytes, small intestine and thymus, but also in K-562 erythroleukemia cells, MCF-7 breast carcinoma cells and activated T-cells. APO2 / TNFRSF10A is receptor for the cytotoxic ligand TNFSF10 / TRAIL. The adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis. TRAILR-1 / DR4 / CD261 promotes the activation of NF-kappa-B.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.