

**Synonym**

CD28, Tp44

**Source**

Rat CD28, His Tag(CD8-R52H9) is expressed from human 293 cells (HEK293).

It contains AA Asn 20 - Leu 150 (Accession # [P31042-1](#)).

Predicted N-terminus: Asn 20

**Molecular Characterization**

CD28(Asn 20 - Leu 150)  
P31042-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 16.9 kDa. The protein migrates as 30-37 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.

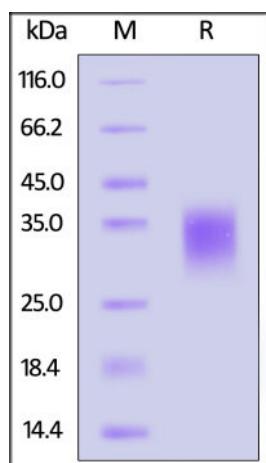
*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***Storage**

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

*Please avoid repeated freeze-thaw cycles.*

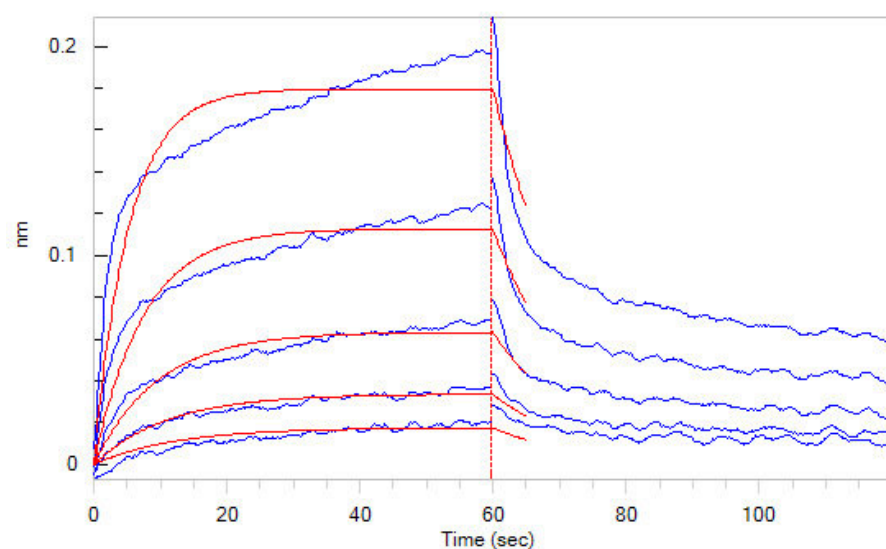
This product is stable after storage at:

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

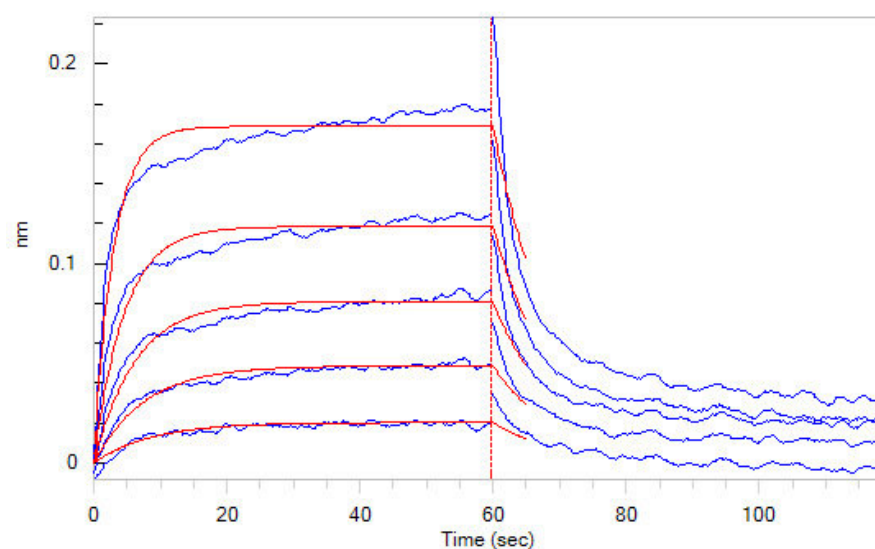
**SDS-PAGE**

Rat CD28, 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-BLI**



Loaded Biotinylated Human B7-1, Fc,Avitag (Cat. No. B71-H82F2) on SA Biosensor, can bind Rat CD28, His Tag (Cat. No. CD8-R52H9) with an affinity constant of 15  $\mu\text{M}$  as determined in BLI assay (ForteBio Octet Red96e) (QC tested).



Loaded Biotinylated Human B7-2, Fc,Avitag, premium grade (Cat. No. CD6-H82F5) on SA Biosensor, can bind Rat CD28, His Tag (Cat. No. CD8-R52H9) with an affinity constant of 6.1  $\mu\text{M}$  as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

## Background

T-cell-specific surface glycoprotein CD28 is also known as TP44, is a single-pass type I membrane protein which contains one Ig-like V-type (immunoglobulin-like) domain. is one of the molecules expressed on T cells that provide co-stimulatory signals, which are required for T cell activation. CD28 is the receptor for CD80 (B7.1) and CD86 (B7.2). When activated by Toll-like receptor ligands, the CD80 expression is upregulated in antigen presenting cells (APCs). The CD86 expression on antigen presenting cells is constitutive. CD28 is the only B7 receptor constitutively expressed on naive T cells.

## Clinical and Translational Updates

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