

Synonym

CD28, Tp44

Source

Mouse CD28, Fc Tag (CD8-M5257) is expressed from human 293 cells (HEK293). It contains AA Asn 20 - Lys 149 (Accession # [NP_031668.3](#)).

Predicted N-terminus: Asn 20

Molecular Characterization

CD28(Asn 20 - Lys 149) NP_031668.3	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 41.7 kDa. The protein migrates as 55-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5. Normally trehalose is added as protectant before lyophilization.

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

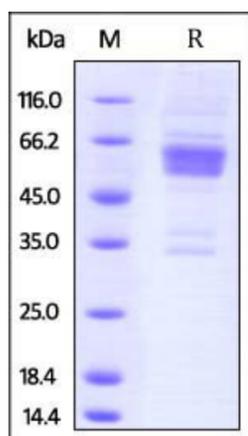
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

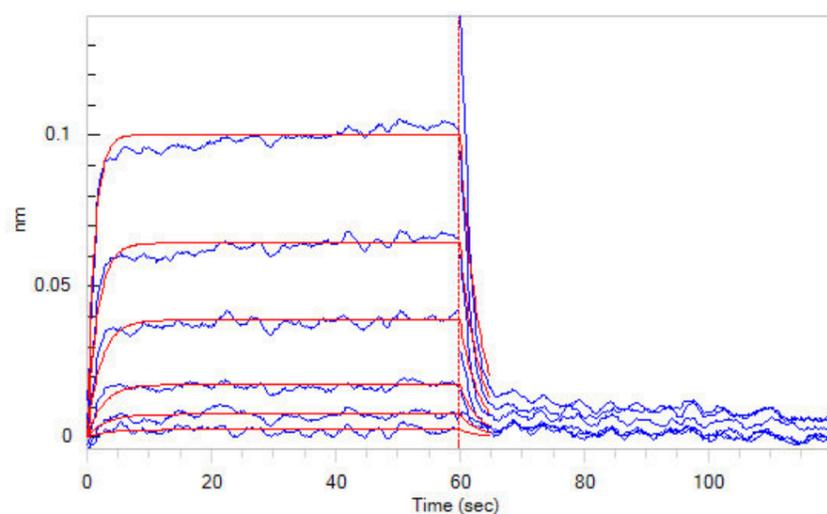
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

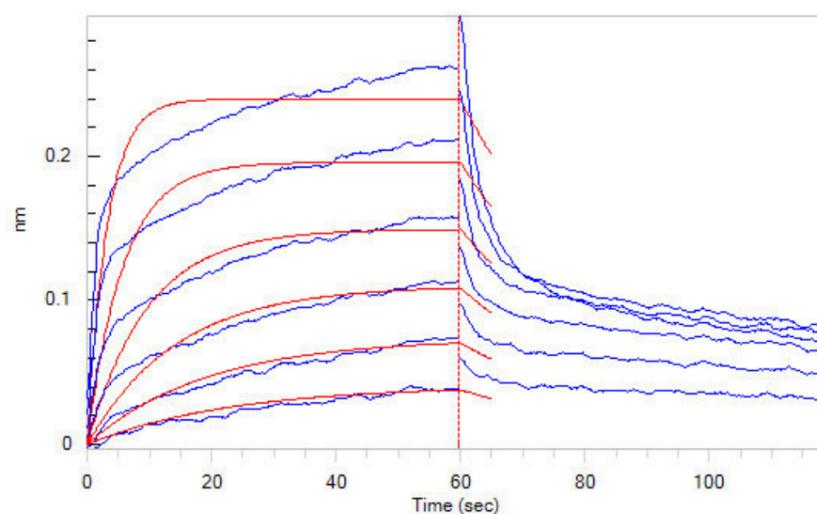


Mouse CD28, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-BLI



Loaded Mouse CD28, Fc Tag (Cat. No. CD8-M5257) on Protein A Biosensor, can bind Mouse B7-2, His Tag (Cat. No. CD6-M52H0) with an affinity constant of 5.6 μM as determined in BLI assay (ForteBio Octet Red96e) (QC tested).



Loaded Mouse CD28, Fc Tag (Cat. No. CD8-M5257) on Protein A Biosensor, can bind Mouse B7-1, His Tag (Cat. No. CD0-M5228) with an affinity constant of 0.99 μM 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.

References

- (1) [Woerly G., et al., 2002, J Leukoc Biol 72 \(4\): 769–79.](#)
- (2) [Nunès, J A., et al., 1996, J. Biol. Chem. \(UNITED STATES\) 271 \(3\): 1591–8.](#)
- (3) [Ellis, J H., et al., 2000, J. Immunol. \(UNITED STATES\) 164 \(11\): 5805–14.](#)

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.