Human CD28H / IGPR-1 Protein, Fc Tag (MALS verified)

Catalog # CDH-H5251

Synonym

TMIGD2,IGPR1

Source

Human CD28H, Fc Tag(CDH-H5251) is expressed from human 293 cells (HEK293). It contains AA Leu 23 - Gly 150 (Accession # AAH15655.1). Predicted N-terminus: Leu 23

Molecular Characterization

CD28H(Leu 23 - Gly 150) AAH15655.1	Fc(Pro 100 - Lys 330) P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 40.6 kDa. The protein migrates as 45-60 kDa under reducing (R) condition, and 90-130 kDa,150kDa when calibrated against Star Ribbon Pre-stained Protein Marker under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

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

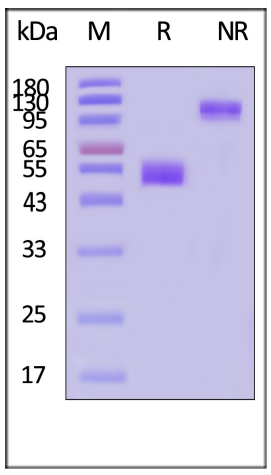
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

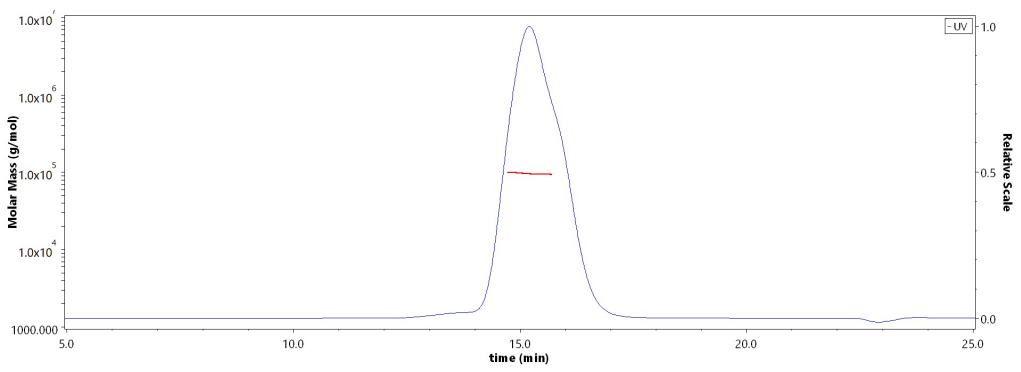
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



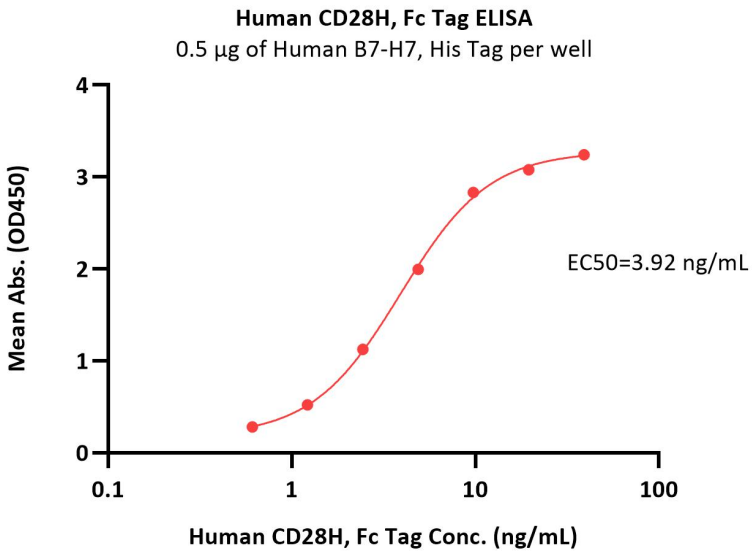
Human CD28H, Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



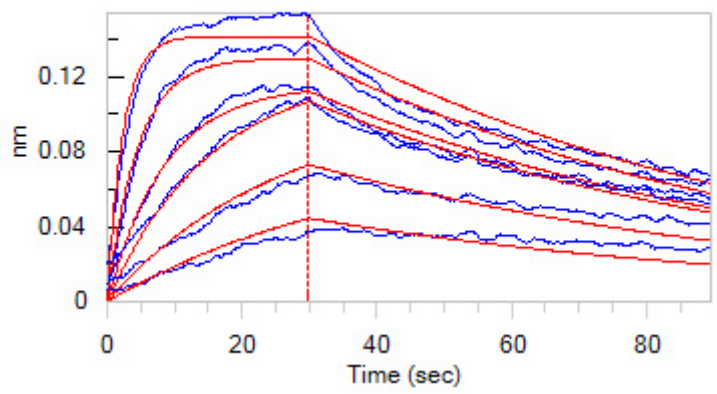
The purity of Human CD28H, Fc Tag (Cat. No. CDH-H5251) is more than 90% and the molecular weight of this protein is around 86-106 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

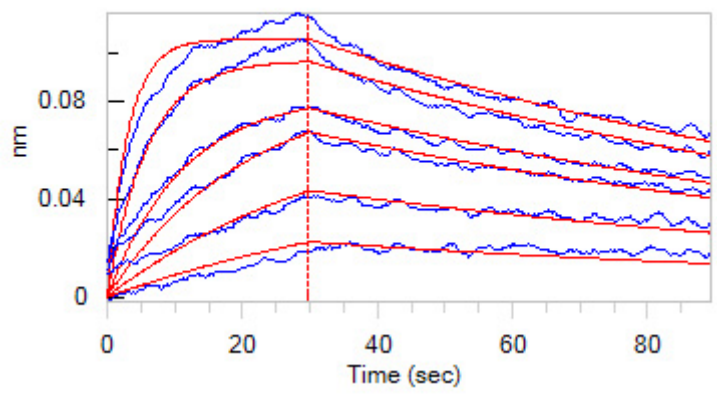


Immobilized Human B7-H7, His Tag (Cat. No. B77-H52H6) at 5 μg/mL (100 μL/well) can bind Human CD28H, Fc Tag (Cat. No. CDH-H5251) with a linear range of 0.6-10 ng/mL (QC tested).

Bioactivity-BLI



Loaded Human B7-H7, His Tag on HIS1K Biosensor, can bind Human CD28H, Fc Tag (Cat. No. CDH-H5251) with an affinity constant of 16.4 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Cynomolgus B7-H7, His Tag (Cat. No. B77-C52H3) on HIS1K Biosensor, can bind Human CD28H, Fc Tag (Cat. No. CDH-H5251) with an affinity constant of 13.3 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

CD28 homolog (CD28H), also called transmembrane and immunoglobulin domain containing 2 (TMIGD2) and IGPR-1,is encoded by the TMIGD2 gene. CD28H is constitutively expressed on naive T and NK cells. After interaction of CD28 homolog with B7 homologue,the peripheral effector and memory T cells can be activated and proliferated by Akt-dependent signalling cascade. Plays a role in cell-cell interaction, cell migration, and angiogenesis. Through interaction with HHLA2, costimulates T-cells in the context of TCR-mediated activation. Enhances T-cell proliferation and cytokine production via an AKT-dependent signaling cascade.