



Datasheet for ABIN3137669

CD28 Protein (CD28) (AA 19-152) (Fc Tag,AVI tag,Biotin)



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1 Publication

Overview

Quantity:	200 µg
Target:	CD28
Protein Characteristics:	AA 19-152
Origin:	Human, Cynomolgus, Rhesus Monkey
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This CD28 protein is labelled with Fc Tag,AVI tag,Biotin.

Product Details

Brand:	MABSol@,PrecisionAvi
Sequence:	AA 19-152
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Characteristics:	This protein carries a human IgG1 Fc tag at the C-terminus, followed by a Avi tag (Avitag™). The protein has a calculated MW of 43.6 kDa. As a result of glycosylation, the protein migrates as 55-66 kDa under reducing (R) condition, and 110-130 kDa under non-reducing (NR) condition (SDS-PAGE).
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	CD28
Alternative Name:	CD28 (CD28 Products)
Background:	<p>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.</p>
Molecular Weight:	43.6 kDa
Pathways:	TCR Signaling , Fc-epsilon Receptor Signaling Pathway , EGFR Signaling Pathway , Regulation of Leukocyte Mediated Immunity , Positive Regulation of Immune Effector Process , Production of Molecular Mediator of Immune Response

Application Details

Comment:	<p>Ready-to-use Avitag™ biotinylated protein:</p> <p>The product is exclusively produced using the Avitag™ technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA.</p> <p>This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.</p>
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	Tris with Glycine, Arginine and NaCl, pH 7.5
Handling Advice:	Please avoid repeated freeze-thaw cycles.

Handling

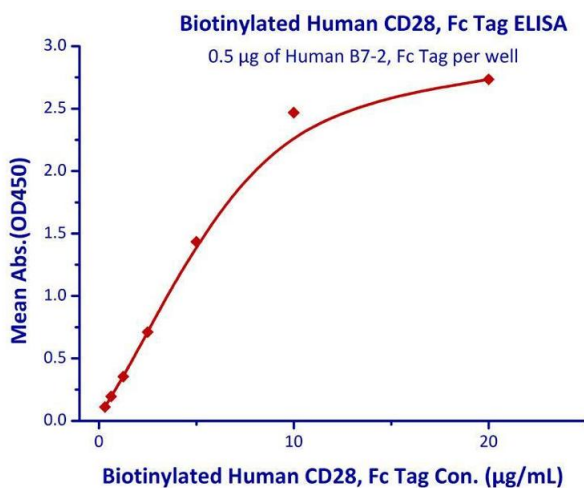
Storage: -20 °C

Publications

Product cited in: Kalichuk, Renodon-Cornière, Béhar, Carrión, Obal, Maillason, Mouratou, Préat, Pecorari: "A novel, smaller scaffold for Affitins: Showcase with binders specific for EpCAM." in: **Biotechnology and bioengineering**, Vol. 115, Issue 2, pp. 290-299, (2018) ([PubMed](#)).

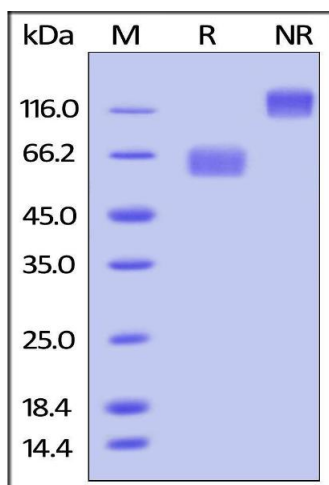
Grzeschik, Hinz, Könnig, Pirzer, Becker, Zielonka, Kolmar: "A simplified procedure for antibody engineering by yeast surface display: Coupling display levels and target binding by ribosomal skipping." in: **Biotechnology journal**, Vol. 12, Issue 2, (2017) ([PubMed](#)).

Images



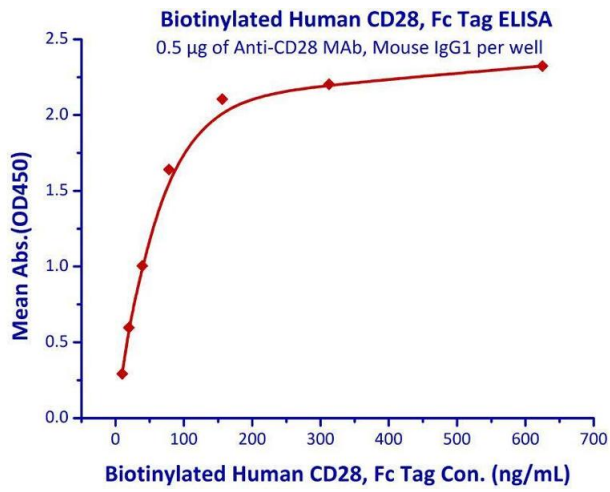
Binding Studies

Image 1. Immobilized Human B7-2, Fc Tag with a linear range of 0.15-5 µg/mL.



SDS-PAGE

Image 2. Biotinylated Human CD28, Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



Binding Studies

Image 3. Immobilized Anti-CD28 MAb, Mouse IgG1 at 5µg/mL (100 µL/well) can bind Biotinylated Human CD28, Fc Tag with a linear range of 2.4-39 ng/mL.