Product Name: Human CD90 Protein Dimer, His-Avi Tag

Product Code: CSP-26457-03

FOR RESEARCH USE ONLY (RUO)

Protein Name: CD90, Protein Dimer

Alternate Name(s): Thy-1 membrane glycoprotein, THY1, CDw90, Thy-1 cell surface antigen

Expression Host
HEK293T

Amino Acid Range
Q20-S141

Protein Construct
CD90 dimer protein contains a CD90 extracellular domain (UniProt# P04216) fused with a proprietary cis-dimer motif followed by a tandem His-Avi tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight
47.2 kDa. The migration range of the dimer protein with glycosylation under non-reducing condition is 85 kDa on SDS PAGE.

Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

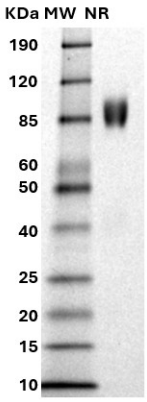
Shipping Conditions
Product is shipped at ambient temperature.

Formulation
Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4 with 10% trehalose as a protectant

Stability & Storage
On receipt, store at -20 C or lower for long term storage.
This product is stable at:
-20 to -70 C for 12 months from date of receipt in lyophilized state.
-70 C for 3 months after reconstitution under sterile conditions.
Avoid repeated freeze-thaw cycles

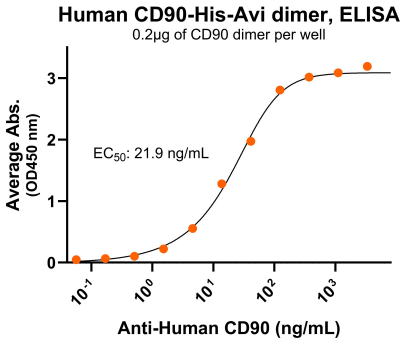
Reconstitution of lyophilized product
For best performance, we strongly recommend you reconstitute the lyophilized product with deionized water to a stock solution of 500 μg/mL.
Solubilize for 20 minutes at room temperature with occasional gentle mixing. Avoid shaking or vortexing.
For 25μg product size:
Reconstitute with 50 μL sterile deionized water.
For 100μg product size:
Reconstitute with 200 μL sterile deionized water.

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: CD90 dimer under non-reduced condition
The migration range of the dimer protein with glycosylation under non-reducing condition is 85 kDa on SDS PAGE.

Antibody Binding



Immobilized human CD90 dimer protein, His-Avi tag (Cat. No. CSP-26457-03) at 2 μg/mL (100 μL/well) can bind anti-human CD90 monoclonal antibody, with half maximal effective concentration (EC50) range of 10.9-43.8 ng/mL (QC tested).

Background

Human Cluster of Differentiation 90 (CD90) is a heavily N-glycosylated, glycophosphatidylinositol (GPI) anchored cell surface protein and is a member of the Immunoglobulin superfamily. CD90 is also known as Thy-1 membrane glycoprotein (THY1) and CDw90. CD90 contains an extracellular domain with a single V-like immunoglobulin domain. CD90 is expressed on a variety of cells including thymocytes, stem cells, and neurons. CD90 has been shown to be involved in T cell activation, neurite outgrowth, apoptosis, tumor suppression, wound healing, and fibrosis. Literature supports CD90 self-association, dimers/oligomers, and membrane nanoclustering.