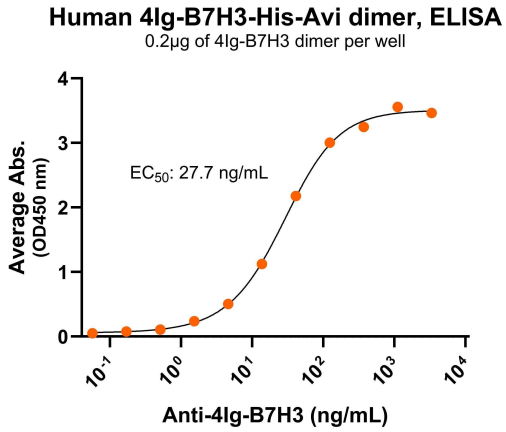
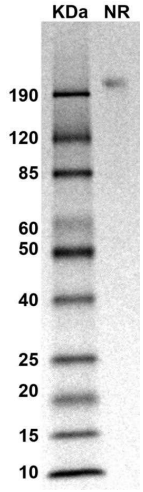
Human 4Ig-B7H3 Dimer, His-Avi Tag
Product Code: CSP-240984lg
For Research Use Only (RUO)

Bioactivity – Antibody Binding



Immobilized human 4Ig-B7H3-His-Avi dimer protein (CSP-240984lg) at 2 μg/mL (100 μL/well) can bind anti-human B7H3 monoclonal antibody with half maximal effective concentration (EC50) range of 13.8-55.3 ng/mL (QC tested).

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: 4Ig-B7H3 dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reducing condition is >190 kDa on SDS PAGE.

Human 4Ig-B7H3 Dimer, His-Avi Tag
Product Code: CSP-240984lg
For Research Use Only (RUO)

Expression Host
HEK293T

Protein Name
B7H3

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

Alternate Name(s)
Cluster of Differentiation 276 (CD276), 4IgB7-H3, 4Ig-B7H3, B7-H3, B7H3, B7RP-2

Protein Construct
4Ig-B7H3 dimer protein contains a 4Ig-B7H3 extracellular domain with two pairs of IgV-like and IgC-like immunoglobulin domains (UniProt# Q5ZPR3-1) fused with a proprietary dimer motif followed by a tandem His-Avi tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range
L29-A466

SDS-Page Molecular Weight
114 kDa. The migration range of the dimer protein with glycosylation under non-reducing condition is >190 kDa on SDS PAGE.

Formulation
0.22μm filtered PBS, pH 7.4

Shipping Conditions
Frozen Dry Ice

Stability & Storage
-80^{0}C

Background

Human B7 Homolog 3 (B7H3, B7-H3) is a member of the B7 family of immune checkpoint proteins involved in regulating immune responses. Human B7H3 has 2 isoforms: 2Ig-B7H3 (2Ig-B7-H3, 2IgB7H3) and 4Ig-B7H3 (4Ig-B7-H3, 4IgB7H3). B7H3 is a Type I membrane protein characterized by an extracellular domain, a transmembrane domain and a cytoplasmic domain. The 4Ig-B7H3 isoform contains two pairs of IgV-like and IgC-like immunoglobulin domains while the 2Ig-B7H3 isoform has a single pair of IgV-like and IgC-like immunoglobulin domains in the extracellular region. B7H3 is also known as B7-H3, Cluster of Differentiation 276 (CD276), and B7RP-2. B7H3 has limited expression on normal tissues but is highly expressed in many cancer cells including lung, kidney, ovarian, colorectal, liver, and breast cancers, which can contribute to immune evasion by inhibiting T cell activation. B7H3 can form a dimer that is critical for its function and can more effectively interact with its receptor(s) on T cells and other immune cells. B7H3 is overexpressed in up to 60% of all cancers and due to its selective expression on solid tumors B7H3 has become a critical target for cancer therapies.