
Product Name: Human EpCAM Protein Dimer, His Tag

Product Code: CSP-26323-01

FOR RESEARCH USE ONLY (RUO)

Protein Name: EpCAM, Protein Dimer

Alternate Name(s): Cluster of Differentiation 326, CD326, DIAR5, EGP-2, EGP314, EGP40, ESA, HNPCC8, KS1/4, KSA, M4S1, MIC18, MK-1, TACSTD1, TROP1, epithelial cell adhesion molecule, BerEp4, MOC-31, Ber-Ep4

Expression Host
HEK293T

Amino Acid Range
Q24 - K265

Protein Construct

EpCAM dimer protein contains an EpCAM extracellular domain (UniProt# P16422) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight

71 kDa. The migration range of the dimer protein with glycosylation under non-reducing conditions is ~120 kDa on SDS PAGE.

Purity

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

Shipping Conditions

Frozen Ice Packs

Stability & Storage

-20°C

Formulation

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

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.

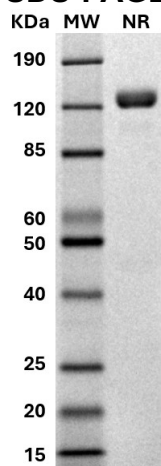
For 25µg product size:

Reconstitute with 50 µL sterile deionized water.

For 100µg product size:

Reconstitute with 200 µL sterile deionized water.

SDS-PAGE

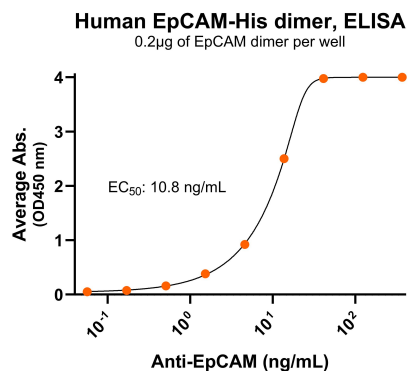


MW: Molecular Weight marker reduced condition

NR: EpCAM dimer under non-reducing condition

The migration range of the dimer protein with glycosylation under non-reducing conditions is ~120 kDa on SDS PAGE.

Antibody Binding



Immobilized human EpCAM dimer protein, His Tag (Cat. No. CSP-26323-01) at 2 µg/mL (100 µL/well) can bind anti-human EpCAM monoclonal antibody, with half maximal effective concentration (EC₅₀) range of 5.4-21.6 ng/mL (QC tested).

Background

Human Epithelial Cell Adhesion Molecule (EpCAM) is a Type I transmembrane glycoprotein mediating Ca^{2+} -independent homotypic cell–cell adhesion in epithelial cells. EpCAM is also known as Cluster of Differentiation 326 (CD326). EpCAM contains an extracellular domain with epidermal growth factor (EGF) and thyroglobulin repeat-like domains sometimes referred to collectively as “EpEX” followed by a single transmembrane domain, and a short intracellular domain sometimes referred to as “EpICD”. High-resolution X-ray crystallography shows that the extracellular part of human EpCAM (EpEX) naturally assembles into a cis-homodimer. EpCAM is highly overexpressed in the vast majority of human carcinomas, including colorectal, breast, gastric, prostate, and lung cancers. Due to it being upregulated in many carcinomas and being exclusively expressed in epithelial cells and epithelial-derived neoplasms EpCAM is a diagnostic marker for several cancers. EpCAM also appears to play a role in tumorigenesis and metastasis of carcinomas, making it an emerging target of cancer therapeutics.