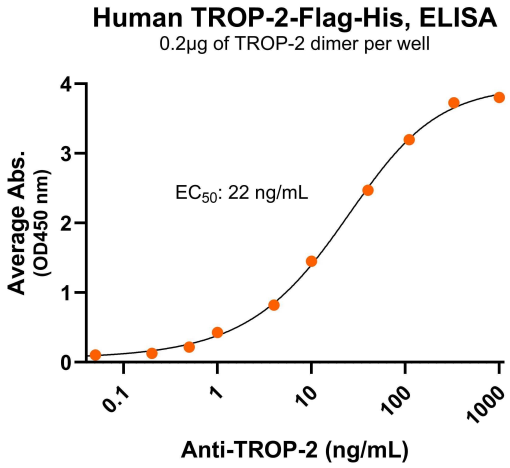
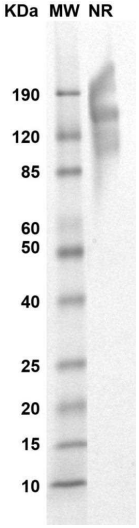
Human TROP-2 Dimer, Flag-His Tag
Product Code: CSP-24041-02
For Research Use Only (RUO)

## Bioactivity – Antibody Binding




Immobilized TROP-2-Flag-His dimer protein (Cat. No. CSP-24041-02) at 2 μg/mL (100 μL/well) can bind anti-human TROP-2 monoclonal antibody with half maximal effective concentration (EC50) range of 10.9-43.6 ng/mL (QC tested).

## SDS-PAGE




MW: Molecular Weight marker reduced condition
NR: TROP-2 dimer under non-reducing condition

The migration range of the dimer under non-reducing conditions is 90-200 kDa on SDS PAGE.

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**Expression Host**
HEK293T

**Protein Name**
TROP-2

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

**Alternate Name(s)**
TACSTD2, epithelial glycoprotein-1, EGP-1, EGP1, GA733-1, GA7331, pancreatic carcinoma marker protein GA733–1/GA733, gastrointestinal tumor-associated antigen GA7331, GP50, membrane component chromosome 1 surface marker 1, M1S1, TROP2, tumor-associated calcium signal transducer 2, tumor associated calcium signal transducer 2, trophoblast cell surface antigen 2, CAA1, TTD2

**Protein Construct**
TROP-2 dimer protein contains a TROP-2 extracellular domain (UniProt# P09758, amino acids His27-Thr274) fused with a dimer motif followed by a tandem Flag-His tag at the C-terminus. Expressed in HEK293T cell line.

**Amino Acid Range**
H27-T274

**SDS-Page Molecular Weight**
72 kDa. The migration range of the dimer under non-reducing conditions is 90-200 kDa on SDS PAGE.

**Formulation**
0.22μm filtered PBS, pH 7.4

**Shipping Conditions**
Frozen Dry Ice

**Stability & Storage**
$-80^0$C

## Background

Human TROP-2 (trophoblast cell surface antigen 2) is a cell-surface type I transmembrane glycoprotein expressed in epithelial cells of various tissues. TROP-2 is also known as TROP2, TACSTD2, EGP-1, pancreatic carcinoma marker protein GA733–1/GA733, gastrointestinal tumor-associated antigen GA7331, GP50, M1S1, tumor-associated calcium signal transducer 2, CAA1, and TTD2. TROP-2 exists as a monomer on the cell surface but can form dimers or oligomers on cancer cells enhancing its role in cancer progression. TROP-2 contains an extracellular domain, a single transmembrane helix, and a cytoplasmic tail. The extracellular domain is comprised of three subdomains: a cysteine-rich domain, a thyroglobulin type-1 domain, and a cysteine-poor domain. TROP-2 is normally involved in the maintenance of epithelial tissue integrity. It is overexpressed in many cancers including breast cancer, non-small-cell lung cancer, thyroid cancer, gastric cancer, pancreatic cancer, and ovarian cancer. TROP-2 overexpression is involved in cancer cell growth, proliferation, invasion, migration, and survival of cancer cells, and is associated with tumor aggressiveness and poor prognosis. TROP-2 is an emerging target of cancer therapeutics.

Bioactive, human TIGIT dimer, Fc Tag
Product Code: CSP-24028
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