

# Active Recombinant Human TACSTD2 Protein, Flag&His tagged

**Cat. No.** TACSTD2-78H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	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.
<b>Species</b>	Human
<b>Source</b>	HEK293T
<b>ProteinLength</b>	27-274 aa
<b>Description</b>	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.

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	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.
<b>Molecular Mass</b>	72 kDa
<b>Homodimer/Heterodimer</b>	Homodimer
<b>Purity</b>	Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition
<b>Application</b>	Verified Applications: ELISA for TROP-2-specific antibody binding assays. Suggested Applications: ELISA for TROP-2-specific antibody binding assays. SPR & BLI for TROP-2-specific antibody binding assays. Animal immunization, RUO.
<b>Storage</b>	At -80 centigrade
<b>Storage Buffer</b>	0.2µm filtered PBS, pH 7.4, no preservatives
<b>Shipping</b>	Frozen Dry Ice

## GENE INFORMATION

<b>Gene ID</b>	4070
<b>Gene Name</b>	TACSTD2 tumor-associated calcium signal transducer 2 [Homo sapiens (human)]
<b>Official Symbol</b>	4070
<b>Synonyms</b>	TACSTD2; tumor-associated calcium signal transducer 2; M1S1; EGP 1; GA733

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	1; TROP2; epithelial glycoprotein-1; cell surface glycoprotein TROP2; cell surface glycoprotein Trop-2; pancreatic carcinoma marker protein GA7331; pancreatic carcinoma marker protein GA733-1; gastrointestinal tumor-associated antigen GA7331; membrane component chromosome 1 surface marker 1; membrane component, chromosome 1, surface marker 1; 40kD glycoprotein, identified by monoclonal GA733; EGP1; GP50; EGP-1; GA7331; GA733-1;
<b>mRNA Refseq</b>	<a href="#">NM_002353</a>
<b>Official Symbol 2</b>	<a href="#">TACSTD2</a>
<b>Gene ID 2</b>	<a href="#">4070</a>
<b>Gene Name 2</b>	<a href="#">TACSTD2 tumor-associated calcium signal transducer 2 [Homo sapiens (human)]</a>
<b>mRNA Refseq 2</b>	<a href="#">NM_002353</a>
<b>Protein Refseq 2</b>	<a href="#">NP_002344</a>
<b>MIM 2</b>	<a href="#">137290</a>
<b>UniProt ID 2</b>	<a href="#">P09758</a>
<b>Bioactivity-Antibody Binding</b>	Immobilized TROP-2-Flag-His dimer protein 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).
<b>SDS-PAGE</b>	MW: Molecular Weight marker reduced condition NR: TROP-2 dimer under non-

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reducing condition

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