

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human TROY/TNFRSF19 in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant mouse (rm) TROY is observed and less than 1% cross-reactivity with recombinant human (rh) 4-1BB, rhBAFF R, rhCD27, rhCD30, rhCD40, rhDR3, rhDR6, rhEDAR, rhFas, rhGITR, rhHVEM, rhNGF R, rhOPG, rhRANK, rhTNF RI, and rhTNF RII is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human TROY/TNFRSF19 Glu30-Leu170 Accession # AAF71828
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human TROY/TNFRSF19 Fc Chimera (Catalog # 1548-TR)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

TROY, also known as TAJ (Toxicity and JNK inducer), and TRADE, is a type I transmembrane glycoprotein belonging to the tumor necrosis factor receptor superfamily (TNFRSF) and has been designated TNFRSF19. Two alternatively spliced transcript variants for human TROY, encoding a 423 amino acid (aa) residues isoforms 1 precursor and a 417 aa isoform 2 precursor have been cloned. The two isoforms differ in their cytoplasmic C-terminal residues. In mouse, a soluble TROY isoform and a transmembrane isoform with a short cytoplasmic tail have also been described. Human TROY isoform 1 cDNA encodes a precursor protein with a putative 23 aa signal peptide, a 147 aa extracellular domain containing two TNF receptor cysteine-rich domains, a 23 aa transmembrane domain and a 230 aa cytoplasmic region containing no death domain. The extracellular domain of human TROY shares 92% aa sequence identity with that of the mouse TROY. In their cytoplasmic domains, the two proteins also share 57% sequence homology. Among TNFRSF members, the extracellular region of TROY is most closely related to EDAR, exhibiting 33% homology. TROY expression has been found in many different embryonic and adult tissues, and is particularly strong in embryonic brain and skin. TROY has been shown to interact with TRAF family members, and to activate the JNK signaling pathway. Although TROY lacks a death domain, it can induce apoptosis by a caspase-independent mechanism. It has been suggested that TROY has pleiotropic functions during embryonic development as well as in adults, particularly in the development of skin and hair follicles. The ligand for TROY has not been identified (1-3).

## References:

1. Eby, M. *et al.* (2000) J. Biol. Chem. **275**:15336.
2. Kojima T. *et al.* (2000) J Biol Chem. **275**:20742.
3. Hu S. *et al.* (1999) Genomics **62**:103.