

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TROY/TNFRSF19 in direct ELISAs. Stains human TROY/TNFRSF19 transfectants but not irrelevant transfectants in flow cytometry.
Source	Monoclonal Mouse IgG ₁ Clone # 933202
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TROY/TNFRSF19 Glu30-Leu170 Accession # Q9NS68
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	HEK293 human embryonic kidney cell line transfected with human TROY/TNFRSF19

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

TROY (also known as TAJ and TNFRSF19) is a 45-55 kDa member of the TNF receptor superfamily of molecules (1-4). It is widely expressed in the embryo, but shows limited expression in adult. In particular, embryonic TROY is found in embryonic epithelium, neural tube, and mesenchyme, and developing neurons of the hippocampus and thalamus (5, 6). In the adult, TROY is found in the nervous system associated with dorsal root and retinal ganglia neurons, astrocytes, and microglia, and in hair follicles where it is expressed by dermal papilla matrix cells (4, 7, 8, 9). In human, TROY has also been found on melanoma cells, not normal melanocytes (10). TROY is reportedly a component of the Nogo-A receptor, taking the place of p75 in a membrane-bound LINGO-1:NgR1:TROY complex (6, 8, 9). This complex purportedly mediates axon repulsion initiated by one of five myelin-associated inhibitory factors (OMpg; CD100; Ephrin B3; Nogo-A; MAG) (6, 11). In the hair follicle, TROY binds LTa and acts with Eda to drive secondary hair follicle development (4, 12). Mature human TROY is a 394 amino acid (aa) type I transmembrane protein (1-3). It possesses a 141 aa extracellular region (aa 30-170) that contains three 40 aa TNFR cysteine motifs, and an extended 232 aa cytoplasmic domain (aa 192-423). There is one potential isoform that shows a two aa substitution for aa 416-423. The extracellular domains of human and mouse TROY share 90% aa identity.

References:

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