

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ROBO1 in ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 770502
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human ROBO1 Met1-Ala858 Accession # Q9Y6N7
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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	HepG2 human hepatocellular carcinoma cell line

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. <ul style="list-style-type: none"> ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

ROBO1 (Roundabout-like protein 1) is a 190-230 kDa member of the ROBO/roundabout receptor family. It is expressed by commissural axons from multiple nuclei, and is also found on vascular endothelium, bronchial epithelium, and syncytiotrophoblasts. It interacts with Slit and DCC to temporally regulate the migration of axonal processes. The human ROBO1 precursor is a 1651 amino acid (aa) type I transmembrane protein. It contains a 25 aa signal sequence, followed by an 872 aa extracellular region (aa 26-897) that possesses five C2-type Ig-like domains (aa 68-541) and three fibronectin type III domains (aa 561-864) (SwissProt # Q9Y6N7). ROBO1 shows multiple isoform variants. The variant used here is termed ROBO1b/DUTT1 (Genbank # NP_598334), and it possesses an 18 aa substitution for aa 1-47, accompanied by a three aa insertion after Gln348, and a deletion of aa 939-947. ROBO1a, by contrast, possesses only the 18 aa substitution just described. A third isoform possesses the same changes as ROBO1b plus an additional deletion of aa 1013-1067, while a final variant utilizes an alternative start site at Met120. Proteolytic cleavage generates a soluble 120 kDa N-terminal fragment. Over aa 20-861, human ROBO1b shares 97% aa identity with mouse ROBO1.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.