

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat DLL1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant rat (rr) Jagged-1, recombinant mouse (rm) Jagged-2, rmNotch-3, rrNotch-2, and rrNotch-1 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 409005
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat DLL1 Gln18-Trp537 Accession # P97677
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

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

Delta-like protein 1 (DLL1) is a 90-100 kDa type I transmembrane protein in the Delta/Serrate/Lag-2 (DSL) family of Notch ligands. Mature rat DLL1 consists of a 520 amino acid (aa) extracellular domain (ECD) with one DSL domain and eight EGF-like repeats, a 23 aa transmembrane segment, and a 154 aa cytoplasmic domain (1). Within the ECD, rat DLL1 shares 90% and 95% aa sequence identity with human and mouse DLL1, respectively. It shares 26%, 36%, and 53% aa sequence identity with rat DLL2, 3, and 4, respectively. The ADAM9, 12, or 17- mediated proteolysis of DLL1 releases a 60 kDa ECD fragment and regulates the Notch-dependent proliferation of hematopoietic and myogenic progenitor cells (2-4). The residual membrane-bound portion of DLL1 can be cleaved by presenilin-dependent γ -secretase, enabling the cytoplasmic domain to migrate to the nucleus (5). DLL1 localizes to adherens junctions on neuronal processes through its association with the scaffolding protein MAGI1 (6). DLL1 is widely expressed, and it plays an important role in embryonic somite formation, cochlear hair cell differentiation, lymphocyte differentiation, and the maintenance of neural and myogenic progenitor cells (4, 7-13). The upregulation of DLL1 in arterial endothelial cells following injury or angiogenic stimulation is central to postnatal arteriogenesis (14). DLL1 is also overexpressed in cervical carcinoma and glioma and contributes to tumor progression (15-16).

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.