

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 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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

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