Mouse Notch-1 Alexa Fluor® 594-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5267T
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Notch-1 in direct ELISAs and Western blots. In direct ELISA, approximately 10% cross-reactivity with recombinant human Notch-1 and recombinant rat Notch-1 is observed and less than 1% cross-reactivity with recombinant mouse (r
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse Notch-1 Ala19-Gln526 Accession # AAM28905
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.
Immunohistochemistry	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

Notch-1 is a 300 kDa type I transmembrane glycoprotein that is one of four Notch homologues involved in developmental processes (1-3). Notch signaling is important for maintaining stem cells and inducing differentiation, especially in the nervous system and lymphoid tissues (2-4). Notch can specify binary cell fates. For example, it promotes T-cell over B-cell development from a common precursor (2). Mouse Notch-1 is synthesized as a 2531 amino acid (aa) precursor that contains an 18 aa signal sequence, a 1707 aa extracellular domain (ECD) with 36 EGF-like repeats and three Lin-12/notch repeats (LNR), a 21 aa transmembrane (TM) segment and a 785 aa cytoplasmic domain that contains six ankyrin repeats, a glutamine-rich domain and a PEST sequence. The 11th and 12th EGF-like repeats, that bind ligands such as Jagged and Delta-like families in humans, correspond to aa 412-488 in mouse Notch-1 (6). Elongation of O-linked fucose chains by Fringe family members at a site within this region can inhibit the interaction of Notch with Jagged ligands, thereby promoting Delta-like ligand interactions (7). The Notch-1 receptor undergoes post-translational furin-type proteolytic cleavage, generating a heterodimer through the interaction of a hydrophobic area C-terminal to the LNR on the extracellular region with the transmembrane/cytoplasmic portion (8, 9). Upon ligand binding, additional sequential proteolysis by TNF-converting enzyme (ADAM17) and the presenilin-dependent γ-secretase results in the release of the Notch intracellular domain (NICD) which translocates into the nucleus, activating transcription of Notch-responsive genes (10). Mouse Notch-1 ECD aa 19-526, which includes the first 13 EGF repeats, shows 94%, 91%, 86% and 79% aa identity with corresponding regions of rat, human, canine, and chicken Notch-1, respectively. This region also exhibits 55-58% aa identity with human Notch-2 and Notch-3.

PRODUCT SPECIFIC NOTICES

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