



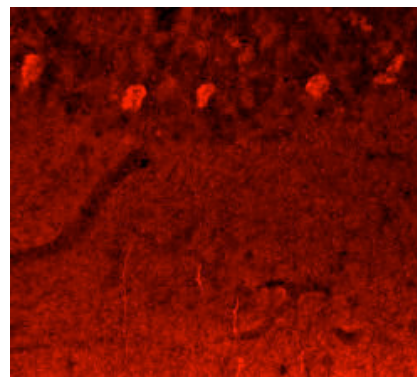
| | | | |
|----------------------------|--|----------------------------|---|
| Catalog Number: | RA19070 | Host: | Rabbit |
| Product Type: | Affinity Purified Antibody | Species Reactivity: | Human; Rat |
| Immunogen Sequence: | Synthetic peptide representing the C terminal region of the human NOTCH homolog 3 (NOTCH3) protein. | Format: | Liquid. 100 ug in 100 ul (1 mg/ml) in PBS containing 0.02% sodium azide |
| Applications: | Immunohistochemistry: 1:100-300 Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. | | |
| Storage: | Maintain at +2-8°C for 3 months or at -20°C for longer periods. Stable for 1 year. <i>Avoid repeated freeze-thaw cycles.</i> | | |
| References: | Allenspach EJ, Maillard I, Aster JC, Pear WS: Notch signaling in cancer. <i>Cancer Biol. Ther.</i> 1(5): 466-476 (2002). Levy OA, Lah JJ, Levey AI: Notch signaling inhibits PC12 cell neurite outgrowth via RBP-J-dependent and -independent mechanisms. <i>Dev. Neurosci.</i> 24(1): 79-88 (2002). Ellisen LW, Bird J, West DC, Soreng AL, Reynolds TC, Smith SD, Sklar J: TAN-1, the human homolog of the Drosophila notch gene, is broken by chromosomal translocations in T lymphoblastic neoplasms. <i>Cell</i> 66(4): 649-661 (1991). | | |

Application Notes

Description/Data:

The Notch protein sits like a trigger penetrating the cell membrane, with part of it inside and part outside. Proteins when binding to the exterior part cause the release of a portion of the interior part, which typically then makes its way to the cell nucleus to alter gene expression. The Notch gene belongs to a family of epidermal growth factor (EGF) like homeotic genes, which encode transmembrane proteins with a variable number of cysteine rich EGF like repeats in the extracellular region. Four notch genes have been described in mammals: Notch1, Notch2, Notch3 and Notch4 (Int3), which have been implicated in the differentiation of the nervous system and other structures. The EGF like proteins Delta and Serrate have been identified as ligands of Notch1. Notch signaling is important in embryonic development promotes survival and proliferation of stem cells. This could have positive implications for functional recovery from stroke and Neurodegenerative diseases. Signaling is often repressed in many cancers, and faulty Notch signalling is implicated in many diseases including T-ALL (T-cell acute lymphoblastic leukemia), CADASIL (Cerebral Autosomal Dominant Arteriopathy with Sub-cortical Infarcts and Leukoencephalopathy), MS (Multiple Sclerosis), Tetralogy of Fallot, Alagille syndrome, and myriad other disease states.

Image: Notch3 staining of rat cerebellum (Bergmann glia-10 micron cryostat sections). Working dilution is 1:100-1:300. Stained tissue was mounted under i-Brite Plus mounting media.



FOR RESEARCH USE ONLY

NEUROMICS' REAGENTS ARE FOR IN VITRO AND CERTAIN NON-HUMAN IN VIVO EXPERIMENTAL USE ONLY AND NOT INTENDED FOR USE IN ANY HUMAN CLINICAL INVESTIGATION, DIAGNOSIS, PROGNOSIS, OR TREATMENT. THE ABOVE ANALYSES ARE MERELY TYPICAL GUIDES. THEY ARE NOT TO BE CONSTRUED AS BEING SPECIFICATIONS. ALL OF THE ABOVE INFORMATION IS, TO THE BEST OF OUR KNOWLEDGE, TRUE AND ACCURATE. HOWEVER, SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL, ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE, EXPRESS OR IMPLIED, ON OUR PART. WE DISCLAIM ALL LIABILITY IN CONNECTION WITH THE USE OF THE INFORMATION CONTAINED HEREIN OR OTHERWISE, AND ALL SUCH RISKS ARE ASSUMED BY THE USER. WE FURTHER EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. -V3/08/2012