

Basic Information

Product Name	Anti-NOTCH2 Antibody	
Gene Name	NOTCH2	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human NOTCH2 recombinant protein (Position: H2194-A2471).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	110, 300 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Flow Cytometry (Fixed): 1:50-200 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

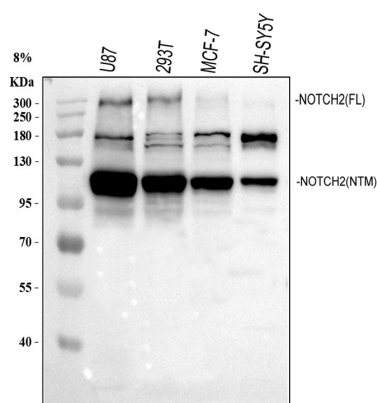
12 months from date of receipt, -20°C as supplied.

Background Information

Neurogenic locus notch homolog protein 2 also known as notch 2 is a protein that in humans is encoded by the NOTCH2 gene. It is mapped to 1p12. This gene encodes a member of the Notch family. Members of this Type 1 transmembrane protein family share structural characteristics including an extracellular domain consisting of multiple epidermal growth factor-like (EGF) repeats, and an intracellular domain consisting of multiple, different domain types. Notch family members play a role in a variety of developmental processes by controlling cell fate decisions. The Notch signaling network is an evolutionarily conserved intercellular signaling pathway which regulates interactions between physically adjacent cells. In Drosophila, notch interaction with its cell-bound ligands (delta, serrate) establishes an intercellular

signaling pathway that plays a key role in development. Homologues of the notch-ligands have also been identified in human, but precise interactions between these ligands and the human notch homologues remain to be determined. This protein is cleaved in the trans-Golgi network, and presented on the cell surface as a heterodimer. This protein functions as a receptor for membrane bound ligands, and may play a role in vascular, renal and hepatic development. Two transcript variants encoding different isoforms have been found for this gene.

Selected Validation Data



Western blot analysis of NOTCH2 using anti-NOTCH2 antibody (A00518-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human U87 whole cell lysates,

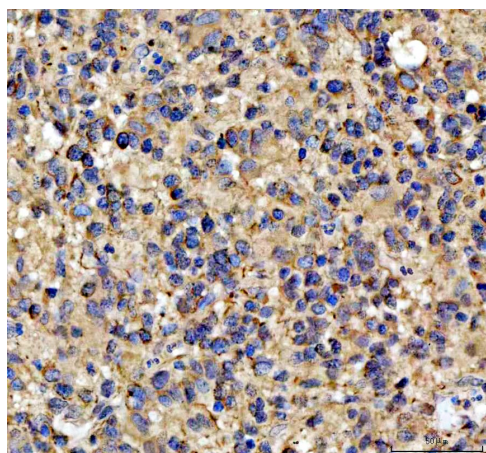
Lane 2: human 293T whole cell lysates,

Lane 3: human MCF-7 whole cell lysates,

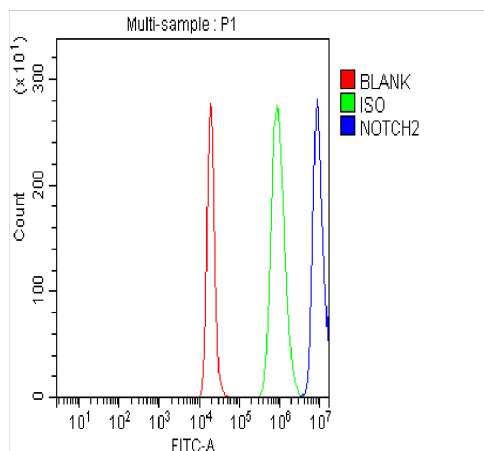
Lane 4: human SH-SY5Y whole cell lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-NOTCH2 antigen affinity purified polyclonal antibody (A00518-2) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for NOTCH2 at approximately 110, 300 kDa. The expected band size for NOTCH2 is at 110 kDa.



IHC analysis of NOTCH2 using anti-NOTCH2 antibody (A00518-2). NOTCH2 was detected in a paraffin-embedded section of human glioblastoma tissue. The tissue section was incubated with rabbit anti-NOTCH2 Antibody (A00518-2) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of SH-SY5Y cells using anti-NOTCH2 antibody (A00518-2).

Overlay histogram showing SH-SY5Y cells stained with A00518-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NOTCH2 Antibody (A00518-2) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.