

#3640 Store at -20°C

Notch Isoform Antibody Sampler Kit

1 Kit (4 x 20 microliters)



Cell Signaling
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For Research Use Only. Not for Use in Diagnostic Procedures.

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Cleaved Notch1 (Val1744) (D3B8) Rabbit mAb	4147	20 µl	110 kDa	Rabbit IgG
Notch1 (D1E11) XP® Rabbit mAb	3608	20 µl	120, 300 kDa	Rabbit IgG
Notch3 (D11B8) Rabbit mAb	5276	20 µl	90, 270 kDa	Rabbit IgG
Notch2 (D76A6) XP® Rabbit mAb	5732	20 µl	110, 300 kDa	Rabbit
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Notch Isoform Antibody Sampler Kit provides an economical means to investigate Notch Signaling. The kit contains primary and secondary antibodies to perform two western mini-blot with each antibody.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Background

Notch proteins (Notch1-4) are a family of transmembrane receptors that play important roles in development and the determination of cell fate (1). Mature Notch receptors are processed and assembled as heterodimeric proteins, with each dimer comprised of a large extracellular ligand-binding domain, a single-pass transmembrane domain, and a smaller cytoplasmic subunit (Notch intracellular domain, NICD) (2). Binding of Notch receptors to ligands of the Delta-Serrate-Lag2 (DSL) family triggers heterodimer dissociation, exposing the receptors to proteolytic cleavages; these result in release of the NICD, which translocates to the nucleus and activates transcription of downstream target genes (3,4). Constitutively activated Notch1 signaling is associated with the majority of cases of T cell acute lymphoblastic leukemia (T-ALL). The activation is either due to mutations in Notch1 itself or in the components of ubiquitin ligase complex, namely FBW7 (5-6). Notch2 is a member of the Notch family and mutation in Notch2 is associated with Alagille syndrome (7). Notch3 is a member of the Notch family and is processed similar to Notch1 (8). It is expressed primarily in arterial smooth muscle cells (SMC). Mutations altering the number of cysteine residues in the notch3 extracellular region are associated with cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL), a hereditary angiopathy leading to strokes and dementia in adults (9-11). Recent studies indicate that Notch3 is overexpressed in many types of cancer (12-14).

Background References

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