Revision 2

Store at -20C

#3640

Notch Isoform Antibody Sampler Kit

1 Kit (4 x 20 microliters)

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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-blots 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 composed 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

1. Artavanis-Tsakonas, S. et al. (1999) *Science* 284, 770-6.
2. Chan, Y.M. and Jan, Y.N. (1998) *Cell* 94, 423-6.
3. Schroeter, E.H. et al. (1998) *Nature* 393, 382-6.
4. Rand, M.D. et al. (2000) *Mol Cell Biol* 20, 1825-35.
5. Weng, A.P. et al. (2004) *Science* 306, 269-71.
6. Thompson, B.J. et al. (2007) *J Exp Med* 204, 1825-35.
7. McDaniell, R. et al. (2006) *Am J Hum Genet* 79, 169-73.
8. Baron, M. (2003) *Semin Cell Dev Biol* 14, 113-9.
9. Kalimo, H. et al. (2002) *Brain Pathol* 12, 371-84.
10. Karlström, H. et al. (2002) *Proc Natl Acad Sci U S A* 99, 17119-24.
11. Monet, M. et al. (2007) *Hum Mol Genet* 16, 982-92.
12. Park, J.T. et al. (2006) *Cancer Res* 66, 6312-8.
13. Gramantieri, L. et al. (2007) *Liver Int* 27, 997-1007.
14. Yamaguchi, N. et al. (2008) *Cancer Res* 68, 1881-8.

Trademarks and Patents

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.