CELL APPLICATIONS, INC.

Notch1 Polyclonal Antibody

Cat. No. CA1215

Applications:	**WB, IP, IHC**
Detected MW:	**120 kDa**
Species & Reactivity:	**Human, Rat, Mouse**
Isotype:	**Rabbit Polyclonal**

BACKGROUND

Notch receptors play a critical role in lineage specification decisions in development. Physiologic activation of Notch receptors (Notch 1–4) triggered by interaction with a DSL ligand expressed on the surface of a neighboring cell induces two consecutive proteolytic cleavages in the receptor, first by an ADAM metalloprotease and subsequently by the γ-secretase complex, which release the intracellular portion of the Notch protein from the membrane.[1] This fragment ("intracellular Notch" or ICN) rapidly translocates to the nucleus and interacts with the CSL DNA binding protein to activate the expression of target genes.[2] Thus, Notch receptors operate both as recipients of extracellular signals at the cell surface and as transcription factors regulating gene expression in the nucleus. Notch1 signaling is involved in the maintenance of hematopoietic stem cells and is essential for the development of T cells.[3] The key role of Notch1 in T cell development is involved in regulating cell growth, proliferation, differentiation, and apoptosis, processes that when dysregulated are the hallmark of cancer in developing thymocytes. Inhibition of Notch1 signaling with small molecule inhibitors of the γ-secretase complex (GSI) induces cell cycle arrest and apoptosis in leukemic cells.

References:

1. Artavanis-Tsakonas S et al.: Science 284: 770-776, 1999.
2. Oswald F et al.: Mol. Cell. Biol. 21: 7761–74, 2001.
3. Laky K & Fowlkes BJ: Curr. Opin. Immunol. 20: 197-202, 2008.

TECHNICAL INFORMATION

Source:
Notch1 Antibody is a rabbit polyclonal antibody raised against human Notch1 carboxyl-terminal sequence.

Specificity and Sensitivity:
This polyclonal antibody detects endogenous levels of Notch1 protein in normal primary cell lysates.

Storage Buffer: PBS and 30% glycerol

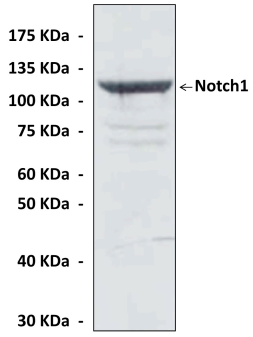
Storage:
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	1:50
IHC	1:100
ICC	n/d
FACS	n/d

*****Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



Western Blot detection of endogenous Notch1 proteins in primary Human Skeletal Muscle Cell (HSKMC) lysate using Notch1 Antibody.