

Notch 1 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	Notch1; notch 1; Mis6; Tan1; 9930111A19Rik; lin-12; N1
Protein Construction:	A DNA sequence encoding the mouse NOTCH1 (NP_032740.3) N-terminal fragment (Met 1-Gln 526) was expressed, with a C-terminal polyhistidine tag. Predicted N terminal: Ala 19
Species:	Mouse
Expression Host:	Baculovirus Insect Cells
Accession:	Q01705-1
Molecular Weight:	55 kDa (predicted); 80 kDa (reducing conditions)

QC Testing

Biological Activity:	<ol style="list-style-type: none">1. Measured by its binding ability in a functional ELISA.2. Immobilized human DLL4 at 10 µg/mL (100 µl/well) can bind biotinylated mouse NOTCH1-his, The EC50 of biotinylated mouse NOTCH1-his is 40 ng/mL.3. Immobilized mouse DLL4-his at 10 µg/mL (100 µl/well) can bind biotinylated mouse NOTCH1-his, The EC50 of biotinylated mouse NOTCH1-his is 30 ng/mL.
Purity:	> 82 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing 20 mM Tris, 500 mM NaCl, pH 7.4, 10% gly. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

NOTCH1 is one of the four mammalian Notch receptors, which is involved in the Notch signaling pathway. Specifically, NOTCH1 promotes the proliferation of myogenic precursor cells, and the NICD domain of NOTCH1 can

impair the regeneration of skeletal muscles. NOTCH1 is a prevalent signaling pathway in T cell acute lymphoblastic leukemia (T-ALL). The NOTCH signaling pathway is a conserved signaling cascade that regulates many aspects of development and homeostasis in multiple organ systems. The proto-oncogene NOTCH1 is frequently mutated in around 10% of patients with chronic lymphocytic leukemia (CLL). NOTCH1 mutations in oral squamous cell carcinoma (OSCC) frequently occur near the ligand-binding region. These mutations change the domain structure of this protein and affect the ligand-binding activity. When NOTCH1 is activated by ligand binding, the NOTCH1 intracellular domain (NICD) is cleaved from the cell membrane.

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