

## Product datasheet for **TA500078AM**

### **NOTCH1 Mouse Monoclonal Antibody (Biotin conjugated) [Clone ID: OTI3E12]**

#### **Product data:**

|                         |   |
|-------------------------|---|
| Product Type:           | Primary Antibodies  |
| Clone Name:             | OTI3E12   |
| Applications:           | IF, IHC, WB   |
| Recommended Dilution:   | WB: 1:1000; IHC 1;50; RPPA 1:75; IF: 1:100  |
| Reactivity:             | Human, Mouse, Rat   |
| Host:                   | Mouse   |
| Isotype:                | IgG2b   |
| Clonality:              | Monoclonal  |
| Immunogen:              | Recombinant protein expressed in E.coli corresponding to amino acids 2300-2556 of human NOTCH1  |
| Concentration:          | 0.5 mg/ml   |
| Purification:           | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)   |
| Conjugation:            | Biotin  |
| Storage:                | Store at -20°C as received.   |
| Stability:              | Stable for 12 months from date of receipt.  |
| Predicted Protein Size: | 270.6 kDa   |
| Gene Name:              | notch receptor 1  |
| Database Link:          | <a href="#">NP_060087</a><br><a href="#">Entrez Gene 18128 Mouse</a> <a href="#">Entrez Gene 25496 Rat</a> <a href="#">Entrez Gene 4851 Human</a><br><a href="#">P46531</a> |



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**Background:**

Notch1 is 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 multiple roles during development

**Synonyms:**

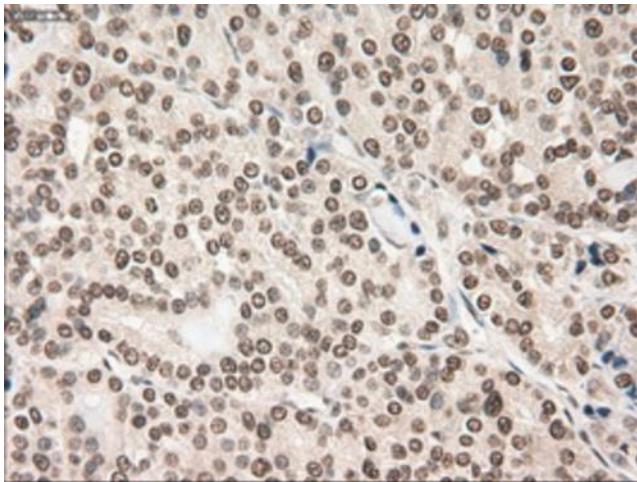
AOS5; AOVD1; hN1; TAN1

**Protein Families:**

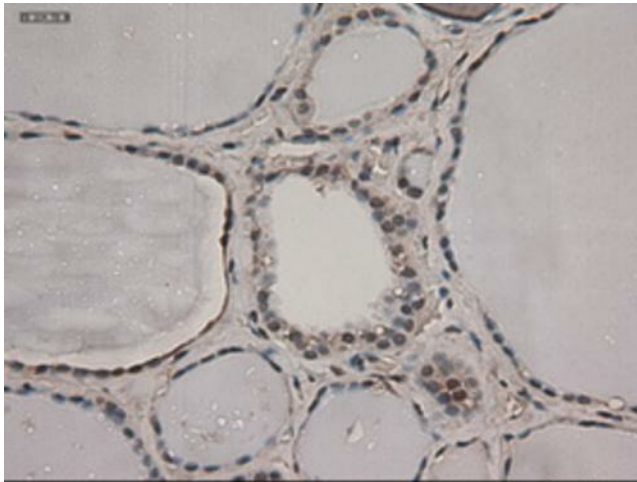
Adult stem cells, Cancer stem cells, Druggable Genome, ES Cell Differentiation/IPS, Stem cell relevant signaling - DSL/Notch pathway

**Protein Pathways:**

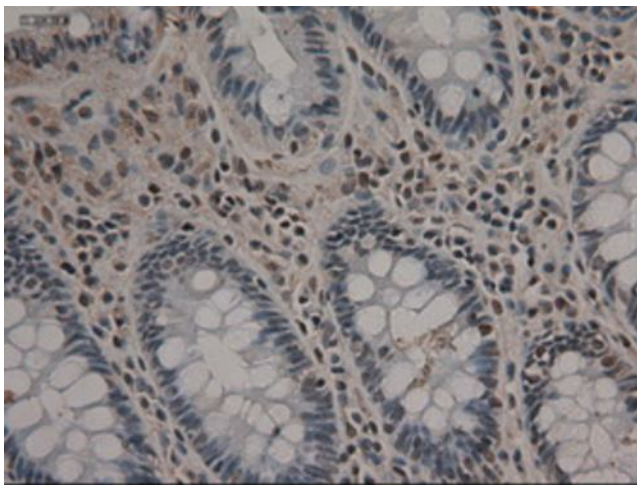
Dorso-ventral axis formation, Notch signaling pathway, Prion diseases

**Product images:**

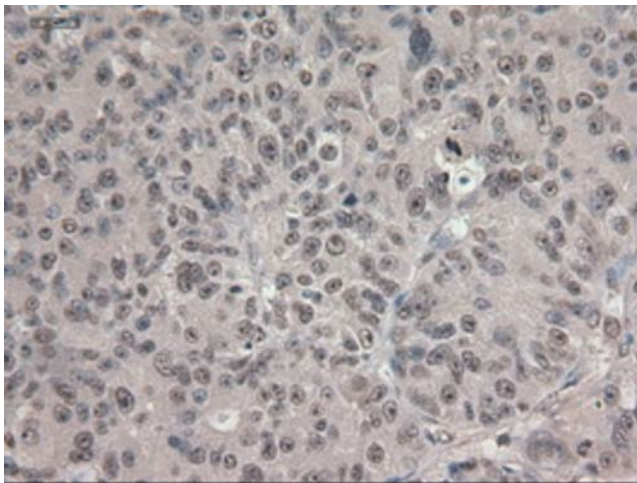
Immunohistochemical staining of paraffin-embedded Carcinoma of thyroid using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded thyroid within the normal limits using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

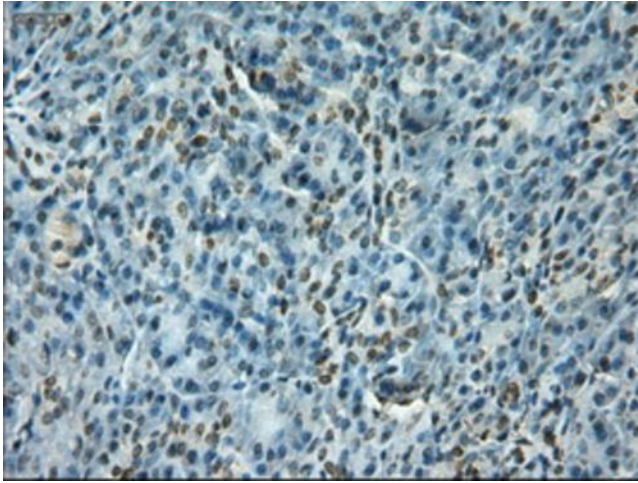


Immunohistochemical staining of paraffin-embedded colon within the normal limits using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

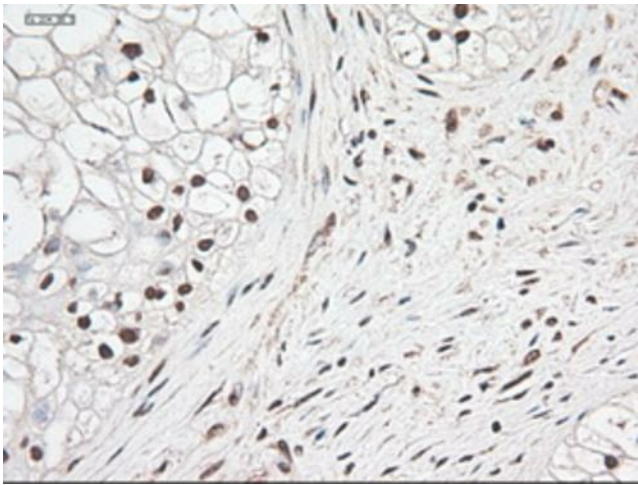


Immunohistochemical staining of paraffin-embedded Adenocarcinoma of ovary using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

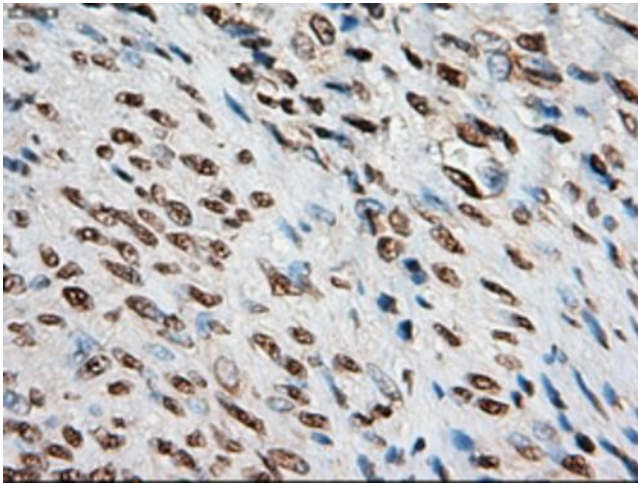




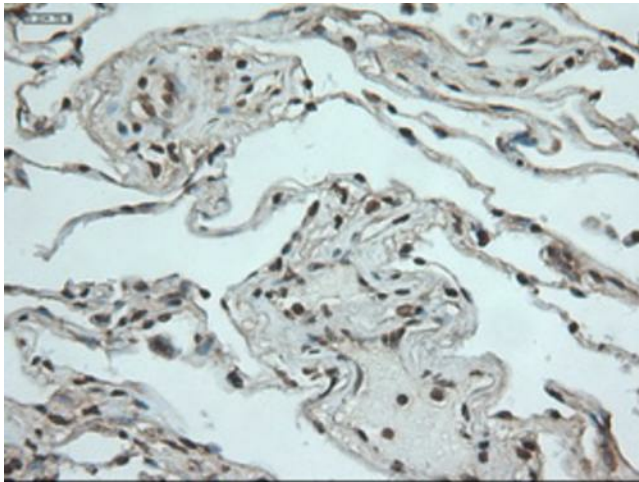
Immunohistochemical staining of paraffin-embedded pancreas within the normal limits using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



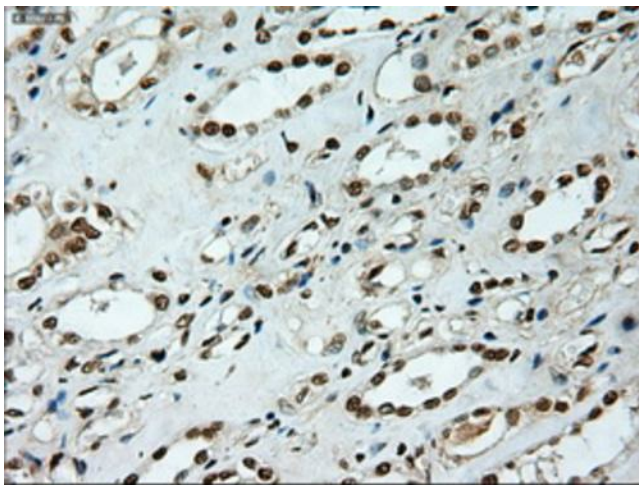
Immunohistochemical staining of paraffin-embedded Carcinoma of pancreas using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



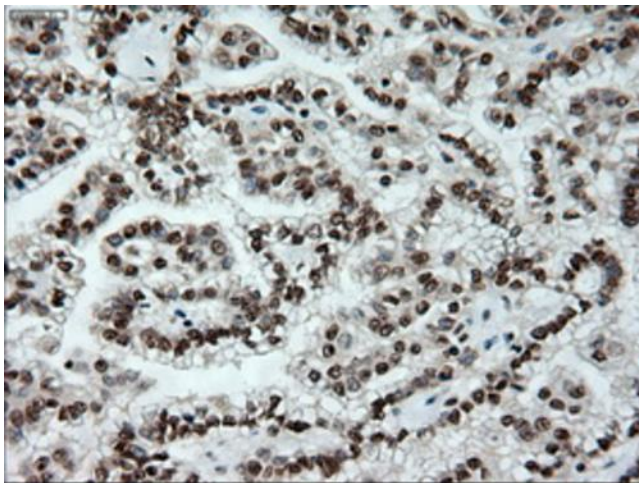
Immunohistochemical staining of paraffin-embedded endometrium within the normal limits using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded lung within the normal limits using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

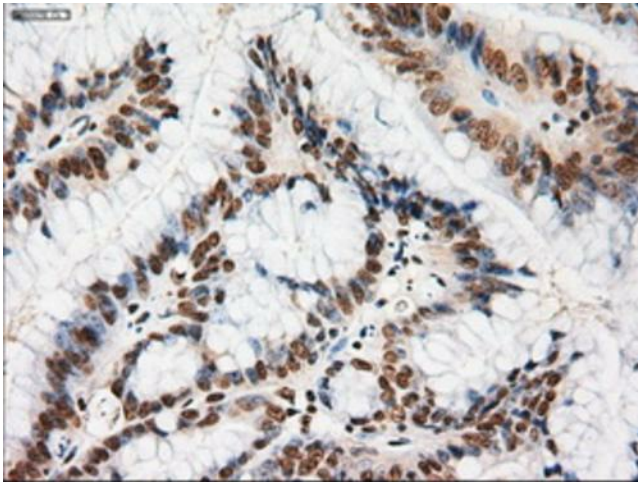


Immunohistochemical staining of paraffin-embedded kidney within the normal limits using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

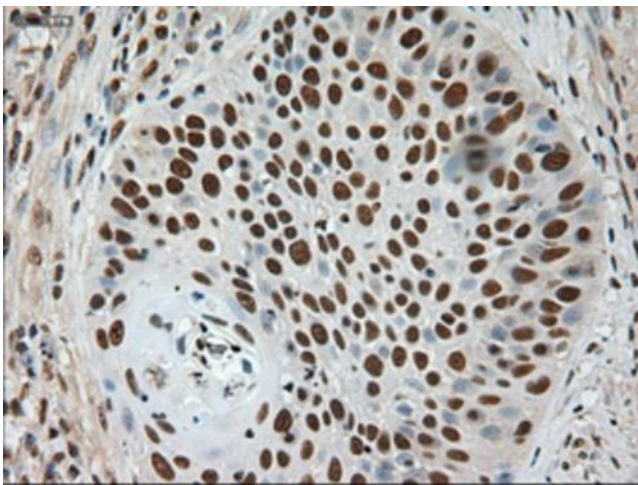


Immunohistochemical staining of paraffin-embedded Carcinoma of kidney using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

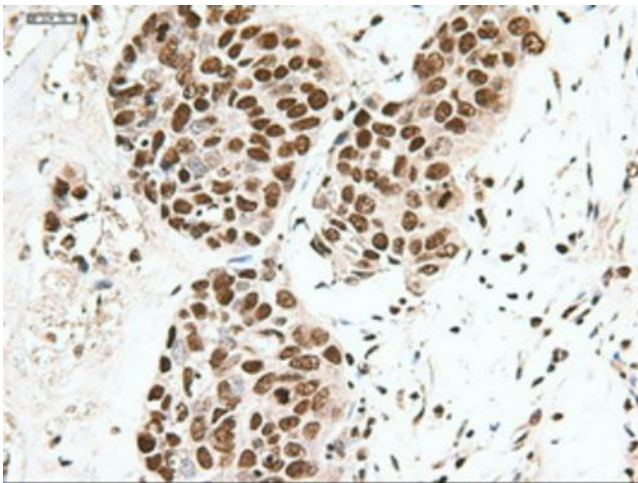




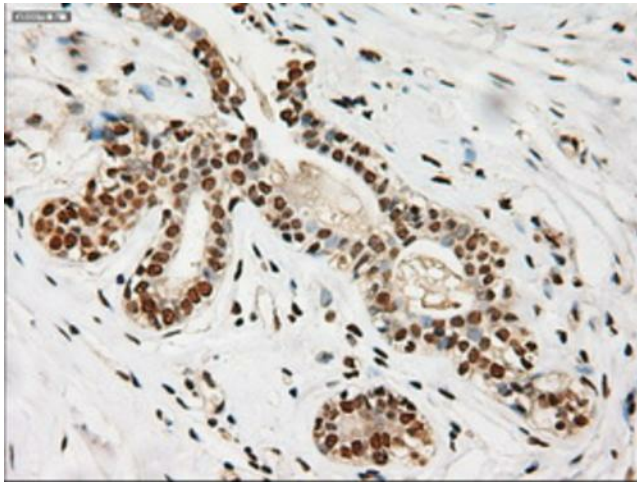
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of colon using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



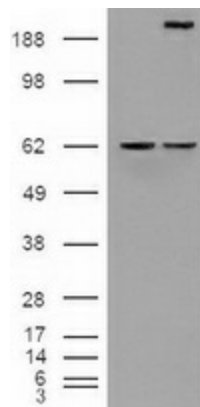
Immunohistochemical staining of paraffin-embedded Carcinoma of lung using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



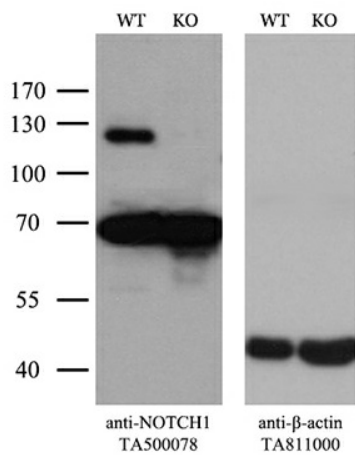
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of breast using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded breast within the normal limits using anti-Notch1 ([TA500078]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY Notch1 (Cat# [RC211365], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-Notch1 (Cat# [TA500078]). Positive lysates [LY402602] (100ug) and [LC402602] (20ug) can be purchased separately from OriGene.



Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and NOTCH1-Knockout HeLa cells (KO, Cat# [LC810153]) were separated by SDS-PAGE and immunoblotted with anti-NOTCH1 monoclonal antibody [TA500078]. Then the blotted membrane was stripped and reprobed with anti-β-actin antibody ([TA811000]) as a loading control (1:500).

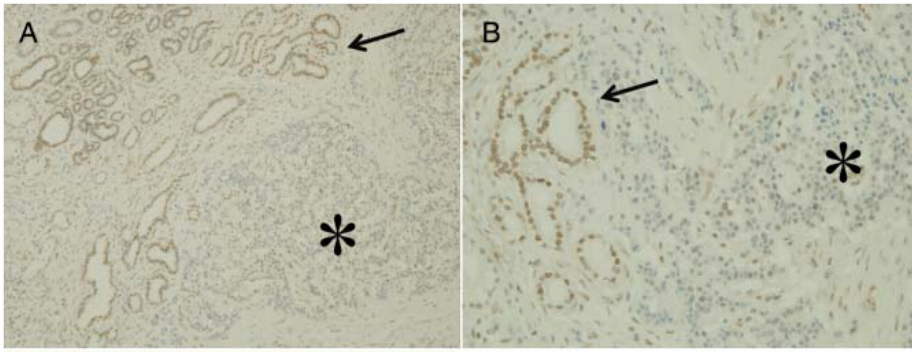
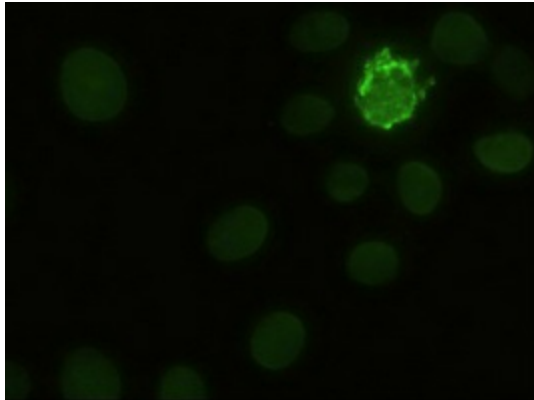
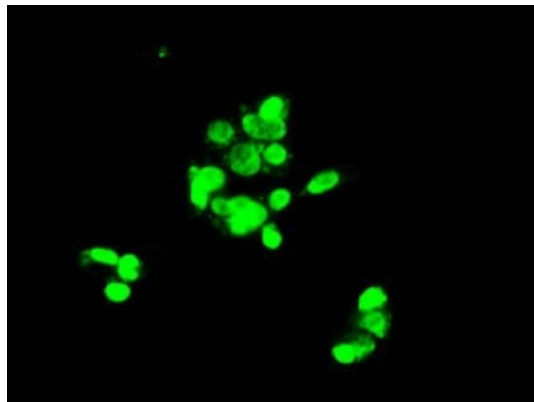


Figure from citation: Immunohistochemistry for Notch1: Comparative analysis of Notch1 expression between human adenocarcinomas and neuroendocrine tumours (NETs) by using anti-Notch 1 antibody. Nuclear expression is found in the adenocarcinomas (A and B, arrows), but rarely in NETs (A and B, \*). Original magnification, (A),  $\times 40$ ; (B),  $\times 200$ . Dilution: 1:40 [View Citation](#). Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

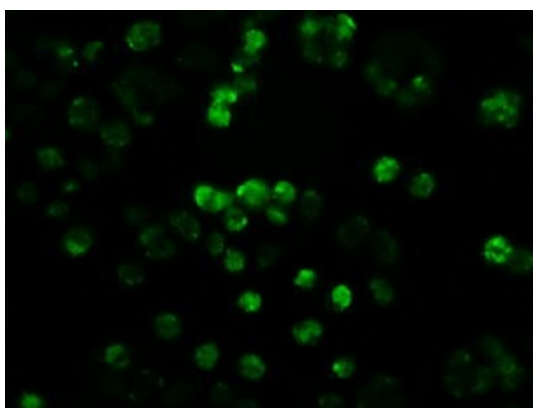


Anti-Notch1 mouse monoclonal antibody ([TA500078]) immunofluorescent staining of HeLa cells transiently transfected by pCMV6-ENTRY Notch1 ([RC211365])



Immunofluorescent staining of HepG2 cells using anti-Notch1 mouse monoclonal antibody ([TA500078]).





Immunofluorescent staining of HT29 cells using anti-Notch1 mouse monoclonal antibody ([TA500078]).