



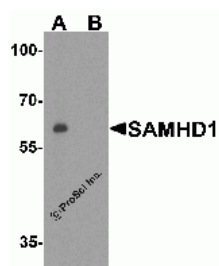
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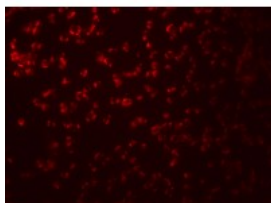
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## SAMHD1 Antibody

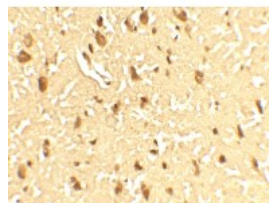
CATALOG NUMBER: 8007



Western blot analysis of SAMHD1 in Daudi cell lysate with SAMHD1 antibody at 1 ug/ml in (A) the absence and (B) the presence of blocking peptide.



Immunofluorescence of SAMHD1 in Daudi cells with SAMHD1 antibody at 20 ug/ml.



Immunohistochemistry of SAMHD1 in human brain tissue with SAMHD1 antibody at 5 ug/ml.

### Specifications

<b>SPECIES REACTIVITY:</b>	Human, Mouse
<b>TESTED APPLICATIONS:</b>	ELISA, IF, IHC, WB
<b>APPLICATIONS:</b>	SAMHD1 antibody can be used for detection of SAMHD1 by Western blot at 1 - 2 ug/ml. Antibody can also be used for Immunohistochemistry starting at 5 ug/mL. For immunofluorescence start at 20 ug/mL.
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.
<b>POSITIVE CONTROL:</b>	1) Cat. No. 1224 - Daudi Cell Lysate
<b>PREDICTED MOLECULAR WEIGHT:</b>	Predicted: 65, 69 kDa Observed: 62 kDa
<b>SPECIFICITY:</b>	SAMHD1 antibody is human and mouse reactive.
<b>IMMUNOGEN:</b>	SAMHD1 antibody was raised against an 18 amino acid peptide near the carboxy terminus of human SAMHD1.
<b>HOST SPECIES:</b>	Rabbit

### Properties

<b>PURIFICATION:</b>	SAMHD1 antibody is affinity chromatography purified via peptide column.
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	SAMHD1 antibody is supplied in PBS containing 0.02% sodium azide.
<b>CONCENTRATION:</b>	1 mg/mL
<b>STORAGE CONDITIONS:</b>	SAMHD1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
<b>CLONALITY:</b>	Polyclonal
<b>ISOTYPE:</b>	IgG
<b>CONJUGATE:</b>	Unconjugated

**Additional Info**

<b>ALTERNATE NAMES:</b>	SAM domain and HD domain 1, DCIP, CHBL2, HDDC1, MOP-5, SBB188
<b>ACCESSION NO.:</b>	NP_056289
<b>PROTEIN GI NO.:</b>	38016914
<b>OFFICIAL SYMBOL:</b>	SAMHD1
<b>GENE ID:</b>	25939

**Background**

**BACKGROUND:** The SAM domain and HD domain 1 (SAMHD1) protein is upregulated in response to viral infection and is thought to play a role in innate immunity (1). SAMHD1 blocks the infection of HIV-1 and SIVdeltaVpx before reverse transcription in macrophages and dendritic cells (2), and this restriction is regulated by phosphorylation of SAMHD1 (3). Mutations in this gene have been associated with Aicardi-Goutieres syndrome (1).

**REFERENCES:**

- 1) Rice GI, Bond J, Asipu A, et al. Mutations involved in Aicardi-Goutieres syndrome implicate SAMHD1 as regulator of the innate immune system. *Nat. Genet.* 2009; 41:829-32.
- 2) Hrecka K, Hao C, Gierszewska M, et al. Vpx relieves the inhibition of HIV-1 infection of macrophages mediated by the SAMHD1 protein. *Nature* 2011; 474:654-7.
- 3) Welbourn S, Dutta SM, Semmes OJ, et al. Restriction of virus infection but not catalytic dNTPase activity is regulated by phosphorylation of SAMHD1. *J. Virol.* 2013; 87:11516-24.

**FOR RESEARCH USE ONLY**

January 12, 2018