Store at -20°C

AHCYL1/IRBIT (D3A5G) Rabbit mAb

#94248

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Entrez-Gene ID #10768
UniProt ID #O43865

New 11/16

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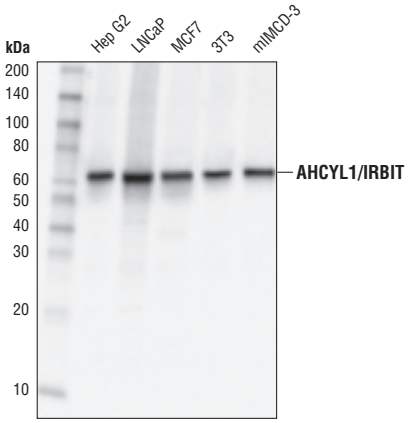
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, M, R, Mk	61 kDa	Rabbit IgG**

Background: S-adenosylhomocysteine hydrolase-like protein 1 (AHCYL1) is a member of S-adenosylhomocysteine hydrolase family, which participates in the metabolism of S-adenosyl-L-homocysteine (1). Two *Drosophila* homologs of S-adenosylhomocysteine hydrolase-like proteins, dAhcyL1 and dAhcyL2, were identified as novel components of methionine metabolism (2). dAhcyL1 and dAhcyL2 function as dominant-negative regulators of S-adenosylhomocysteine hydrolase (2). Global down-regulation of both dAhcyL1 and dAhcyL2 extended life span (2). In addition, brain-specific down regulation of dAhcyL1 extended life span (2). AHCYL1 is also known as inositol 1,4,5-trisphosphate receptor (IP_3R) binding protein released with IP_3 (IRBIT) (1, 3). This protein binds to the endoplasmic reticulum calcium release channel IP_3R and represses its acitivity (1, 3). As a multifunctional regulator, AHCYL1/IRBIT can also form a complex with and suppress the activity of ribonucleotide reductase, thereby influencing the balance of deoxynucleotide triphosphates essential for DNA replication and genomic integrity (4).

Specificity/Sensitivity: AHCYL1/IRBIT (D3A5G) Rabbit mAb recognizes endogenous levels of total AHCYL1/IRBIT protein. This antibody does not cross-react with AHCYL2/IRBIT2 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu50 of human AHCYL1/IRBIT protein.



Western blot analysis of extracts from various cell lines using AHCYL1/IRBIT (D3A5G) Rabbit mAb.

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.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

Background References:

(1) Jeong, W. et al. (2012) *PLoS One* 7, e49204.

(2) Parkhitko, A.A. et al. (2016) *Genes Dev* 30, 1409-22.

(3) Kawaai, K. et al. (2015) *Proc Natl Acad Sci U S A* 112, 5515-20.

(4) Arnaoutov, A. and Dasso, M. (2014) *Science* 345, 1512-5.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Applications: W—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity: H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.