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SPOP Rabbit pAb

Catalog # AP100106

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O43791
Other Accession	O43791
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42132
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SPOP
Epitope Specificity	101-200/374
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the Tdpoz family. Contains 1 BTB (POZ) domain. Contains 1 MATH domain.
SUBUNIT	Interacts with GLI2 and GLI3. Homodimer and homooligomer. Heterodimer with SPOPL. Each dimer interacts with two CUL3 molecules. Part of cullin-RING-based BCR (BTB-CUL3-RBX1) E3 ubiquitin-protein ligase complexes that contain CUL3 and homodimeric SPOP, or the heterodimer formed by SPOP and SPOPL, plus a target protein, such as H2AFY, PDX1/IPF1, BMI1, BRMS1 and DAXX.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a protein that may modulate the transcriptional repression activities of death-associated protein 6 (DAXX), which interacts with histone deacetylase, core histones, and other histone-associated proteins. In mouse, the encoded protein binds to the putative leucine zipper domain of macroH2A1.2, a variant H2A histone that is enriched on inactivated X chromosomes. The BTB/POZ domain of this protein has been shown in other proteins to mediate transcriptional repression and to interact with components of histone deacetylase co-repressor complexes. Alternative splicing of this gene results in multiple transcript variants encoding the same protein. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	8405
Other Names	BTBD32; NEDMACE; NEDMIDF; NSDVS1; NSDVS2; TEF2; Pcif1; SPOP_HUMAN; SPOP; HIB homolog 1; Roadkill homolog 1; SPOP_MOUSE; PDX-1 C-terminal-interacting factor 1; speckle type BTB/POZ protein; speckle-type POZ protein

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SPOP (HGNC:11254)
Function	Component of a cullin-RING-based BCR (BTB-CUL3-RBX1) E3 ubiquitin-protein ligase complex that mediates the ubiquitination of target proteins, leading most often to their proteasomal degradation. In complex with CUL3, involved in ubiquitination and proteasomal degradation of BRMS1, DAXX, PDX1/IPF1, GLI2 and GLI3. In complex with CUL3, involved in ubiquitination of MACROH2A1 and BMI1; this does not lead to their proteasomal degradation. Inhibits transcriptional activation of PDX1/IPF1 targets, such as insulin, by promoting PDX1/IPF1 degradation. The cullin-RING-based BCR (BTB-CUL3-RBX1) E3 ubiquitin-protein ligase complex containing homodimeric SPOP has higher ubiquitin ligase activity than the complex that contains the heterodimer formed by SPOP and SPOPL. Involved in the regulation of bromodomain and extra-terminal motif (BET) proteins BRD2, BRD3, BRD4 stability (PubMed:32109420). Plays an essential role for proper translation, but not for their degradation, of critical DNA replication licensing factors CDT1 and CDC6, thereby participating in DNA synthesis and cell proliferation (PubMed:36791496). Regulates interferon regulatory factor 1/IRF1 proteasomal turnover by targeting S/T-rich degrons in IRF1 (PubMed:37622993). Facilitates the lysosome-dependent degradation of enterovirus EV71 protease 2A by inducing its 'Lys-48'- linked polyubiquitination, which ultimately restricts EV71 replication (PubMed:37796126). Acts as an antiviral factor also against hepatitis B virus/HBV by promoting ubiquitination and subsequent degradation of HNF1A (PubMed:38018242). In turn, inhibits HBV transcription and replication by preventing HNF1A stimulating activity of HBV preS1 promoter and enhancer II (PubMed:38018242). Involved in ubiquitination of BRDT and promotes its degradation, thereby regulates histone removal in early condensing spermatids prior to histone-to-protamine exchange (By similarity).
Cellular Location	Nucleus. Nucleus speckle Cytoplasm
Tissue Location	Widely expressed..

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