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NAC1 Rabbit pAb

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Catalog # AP54795

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q96RE7
Reactivity	Rat
Predicted	Human, Mouse, Dog, Pig, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57258
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NAC1/BTBD14B
Epitope Specificity	311-400/527
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Distribution in the cytoplasm is dependent on phosphorylation.
SIMILARITY	Contains 1 BEN domain. Contains 1 BTB (POZ) domain.
SUBUNIT	Homooligomer; mediated by the BTB domain. Interacts with HDAC3 and HDAC4. Interacts (via BTB domain) with CUL3, PSMD7 AND RCOR1.
DISEASE	Overexpressed in several types of carcinomas including ovarian serous carcinomas. Expression levels positively correlate with tumor recurrence in ovarian serous carcinomas, and intense immunoreactivity in primary ovarian tumors predicts early recurrence. Up-regulated in ovarian carcinomas after chemotherapy, suggesting a role in development of chemotherapy resistance in ovarian cancer.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	NAC1 is an N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C2H2-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. BTBD14B (BTB/POZ domain-containing protein 14B), also known as NACC1 (nucleus accumbens associated 1), BEND8 or NAC1, is a 527 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one BTB (POZ) domain. Existing as a homooligomer that interacts with HDAC3 and HDAC4, BTBD14B functions as a transcriptional repressor that influences the transcriptional activity of CRIF1 and is required for proteasome recruitment to the nucleus and cytoplasm in dendritic spines. BTBD14B is overexpressed in multiple carcinomas, suggesting a role in tumor development and metastasis.

Additional Information

Gene ID	112939
Other Names	Nucleus accumbens-associated protein 1, NAC-1, BTB/POZ domain-containing protein 14B, NACC1, BTBD14B, NAC1
Target/Specificity	Overexpressed in several types of carcinomas including ovarian serous carcinomas. Expression levels positively correlate with tumor recurrence in ovarian serous carcinomas, and intense immunoreactivity in primary ovarian tumors predicts early recurrence. Up-regulated in ovarian carcinomas after chemotherapy, suggesting a role in development of chemotherapy resistance in ovarian cancer.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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.

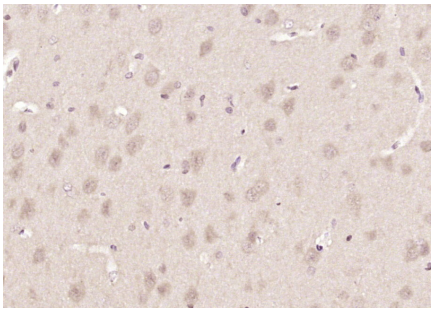
Protein Information

Name	NACC1
Synonyms	BTBD14B, NAC1
Function	Functions as a transcriptional repressor. Seems to function as a transcriptional corepressor in neuronal cells through recruitment of HDAC3 and HDAC4. Contributes to tumor progression, and tumor cell proliferation and survival. This may be mediated at least in part through repressing transcriptional activity of GADD45GIP1. Required for recruiting the proteasome from the nucleus to the cytoplasm and dendritic spines.
Cellular Location	Nucleus. Cytoplasm. Note=Distribution in the cytoplasm is dependent on phosphorylation.
Tissue Location	Overexpressed in several types of carcinomas including ovarian serous carcinomas. Expression levels positively correlate with tumor recurrence in ovarian serous carcinomas, and intense immunoreactivity in primary ovarian tumors predicts early recurrence. Up-regulated in ovarian carcinomas after chemotherapy, suggesting a role in development of chemotherapy resistance in ovarian cancer.

Background

NAC1 is an N-terminal homodimerization domain that contains multiple copies of kelch repeats and/or C2H2-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. BTBD14B (BTB/POZ domain-containing protein 14B), also known as NACC1 (nucleus accumbens associated 1), BEND8 or NAC1, is a 527 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one BTB (POZ) domain. Existing as a homooligomer that interacts with HDAC3 and HDAC4, BTBD14B functions as a transcriptional repressor that influences the transcriptional activity of CRIF1 and is required for proteasome recruitment to the nucleus and cytoplasm in dendritic spines. BTBD14B is overexpressed in multiple carcinomas, suggesting a role in tumor development and metastasis.

Images



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NAC1) Polyclonal Antibody, Unconjugated (AP54795) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.