

NACC1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1489a**Specification**

NACC1 Antibody - Product Information

Application	WB, IHC
Primary Accession	Q96RE7
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	58kDa KDa

Description

NAC1 or nuclear accumbens-1 is a nuclear factor that belongs to the POZ/BTB (Pox virus and zinc finger/bric-a-brac tramtrack broad complex) domain family. Also known as BTBD14B, it was originally identified in a unique neuronal forebrain structure responsible for reward motivation and addictive behaviors . NAC1 recruits HDAC3 and HDAC4 to transcriptionally repress gene expression in neuronal cells (3) and specifically co-represses other POZ/BTB proteins in the central nervous system . NAC1 is upregulated in several tumor types, including breast, renal cell, and hepatocellular carcinoma, as well as high grade ovarian serous carcinoma, where it has long been suspected as a chemoresistance gene . The chemoresistance mechanism reportedly occurs through NAC1 negative regulation of the GADD45 pathway . NAC1 has also been described as part of the extended transcriptional network in pluripotent cells that involves Oct-4, Sox2, Nanog, Sall1, KLF4 and Sall4 . Tissue 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 .

Immunogen

Purified recombinant fragment of human NACC1 expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

NACC1 Antibody - Additional Information

Gene ID 112939

Other Names

Nucleus accumbens-associated protein 1, NAC-1, BTB/POZ domain-containing protein 14B, NACC1, BTBD14B, NAC1

Dilution

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

NACC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NACC1 Antibody - 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.

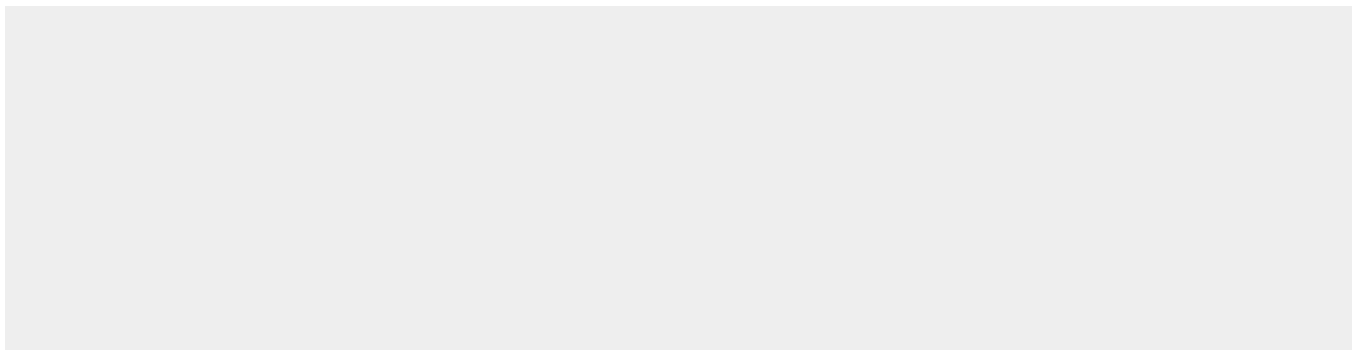
Tissue Location

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.

NACC1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

NACC1 Antibody - Images

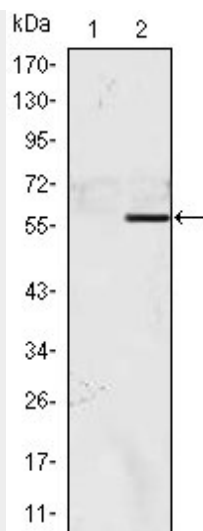


Figure 1: Western blot analysis using NACC1 mAb against HEK293 (1) and NACC1(AA: 165-438)-hlgGfC transfected HEK293 (2) cell lysate.

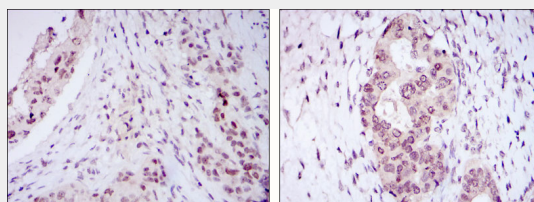


Figure 2: Immunohistochemical analysis of paraffin-embedded mammary cancer tissues (left) and ovarian cancer tissues (right) using NACC1 mouse mAb with DAB staining.

NACC1 Antibody - References

1. Neuroscience. 2002;110(3):421-9. 2. Proc Natl Acad Sci U S A. 2004 Aug 17;101(33):12130-5.