abcam

ab277093

Anti-Nac1 antibody [PCRP-NACC1-1A8]

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human NACC1. Database link Q96RE7
Clone number	PCRP-NACC1-1A8
Purification technique	Affinity purification Protein A/G
Concentration	0.2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from bioreactor concentrate

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1-2 µg for 10^6 Cells
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Protein Array

Tested

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information NACC1

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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Nac1 also known by other names like NACC1 is a transcriptional co-repressor involved in various cellular processes. With a molecular mass of approximately 63 kDa Nac1 is highly expressed in stem cells and several types of cancer cells. It functions by regulating the expression of target genes which influence cell survival and proliferation. In most cells the location of Nac1 is predominantly within the nucleus where it binds to DNA and interacts with other transcription factors.
Biological function summary	The Nac1 protein plays a significant role in embryonic development and maintaining cell pluripotency. It forms a complex with several chromatin remodeling proteins assisting in the regulation of gene transcription. This involvement suggests its function is important in early developmental stages and in cells that require extensive plasticity. Besides Nac1 affects the cellular response to external stress stimuli contributing to cell survival under adverse conditions.
Pathways	The Nac1 protein integrates into the Hedgehog signaling pathway and the ubiquitin-proteasome pathway. In the Hedgehog pathway Nac1 influences gene regulation that is essential for cellular differentiation and tissue development. In the ubiquitin-proteasome pathway Nac1 interacts with proteins such as Skp1 and Cullin1 which are part of the SCF complex to modulate protein degradation.
Associated diseases and disorders	Nac1 has been linked with ovarian cancer and drug addiction. In ovarian cancer aberrant expression of Nac1 correlates with tumor growth and chemoresistance often involving interactions with the FAK protein. In drug addiction changes in the expression of Nac1 in the brain have been associated with the molecular adaptations to chronic drug exposure directly impacting the protein CREB which also plays a critical role in addiction pathways.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

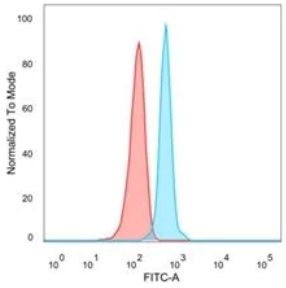
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

---

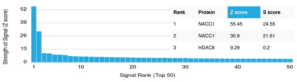
2 product images



Flow Cytometry - Anti-Nac1 antibody [PCRP-NACC1-1A8] (ab277093)

Nac1 Flow Cytometry staining using mouse Anti-Nac1 antibody

Flow cytometry analysis of PFA-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling Nac1 using ab277093 at 2 µg / 10^6 cells followed by goat anti-mouse IgG-CF488 (blue); unstained cells (red).



Protein Array - Anti-Nac1 antibody [PCRP-NACC1-1A8] (ab277093)

Analysis of Protein Array containing more than 19,000 full-length human proteins using ab277093. Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.