

NAT8 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP4957c

Specification

NAT8 Antibody (Center) - Product Information

Application IHC-P, WB,E **Primary Accession 09UHE5** Other Accession O9UHF3 Reactivity Human Host **Rabbit** Clonality **Polyclonal** Isotype Rabbit IgG Antigen Region 110-138

NAT8 Antibody (Center) - Additional Information

Gene ID 9027

Other Names

N-acetyltransferase 8, 231-, Acetyltransferase 2, ATase2, Camello-like protein 1, Cysteinyl-conjugate N-acetyltransferase, CCNAT, NAT8 (HGNC:18069)

Target/Specificity

This NAT8 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 110-138 amino acids from the Central region of human NAT8.

Dilution

IHC-P~~1:50~100 WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

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

Precautions

NAT8 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

NAT8 Antibody (Center) - Protein Information



Name NAT8 (<u>HGNC:18069</u>)

Function Endoplasmic reticulum (ER)-membrane-bound lysine N- acetyltransferase catalyzing the N6-acetylation of lysine residues in the lumen of the ER in various proteins, including PROM1 and BACE1, using acetyl-CoA as acetyl donor (PubMed:19011241, PubMed:22267734, PubMed:24556617, PubMed:31945187). Thereby, may regulate apoptosis through the acetylation and the regulation of the expression of PROM1 (PubMed:24556617). May also regulate amyloid beta-peptide secretion through acetylation of BACE1 and the regulation of its expression in neurons (PubMed:19011241). N(6)-lysine acetylation in the ER maintains protein homeostasis and regulates reticulophagy (By similarity). Alternatively, acetylates the free alpha-amino group of cysteine S- conjugates to form mercapturic acids (PubMed:20392701). This is the final step in a major route for detoxification of a wide variety of reactive electrophiles which starts with their incorporation into glutathione S-conjugates. The glutathione S-conjugates are then further processed into cysteine S-conjugates and finally mercapturic acids which are water soluble and can be readily excreted in urine or bile.

Cellular Location

Endoplasmic reticulum-Golgi intermediate compartment membrane; Single-pass type II membrane protein. Endoplasmic reticulum membrane; Single-pass type II membrane protein

Tissue Location

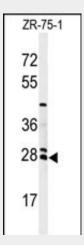
Preferentially expressed in liver and kidney. Also detected in brain (at protein level).

NAT8 Antibody (Center) - Protocols

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

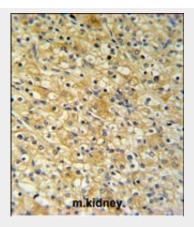
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NAT8 Antibody (Center) - Images



Western blot analysis of NAT8 Antibody (Center) (Cat. #AP4957c) in ZR-75-1 cell line lysates (35ug/lane). NAT8 (arrow) was detected using the purified Pab.





NAT8 Antibody (Center) (Cat. #AP4957c) IHC analysis in formalin fixed and paraffin embedded mouse kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the NAT8 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

NAT8 Antibody (Center) - Background

This protein, isolated using the differential display method to detect tissue-specific genes, is specifically expressed in kidney and liver. The encoded protein shows amino acid sequence similarity to N-acetyltransferases. A similar protein in Xenopus affects cell adhesion and gastrulation movements, and may be localized in the secretory pathway. A highly similar paralog is found in a cluster with this gene.

NAT8 Antibody (Center) - References

Ko, M.H., et al. J. Biol. Chem. 284(4):2482-2492(2009) Juhanson, P., et al. BMC Med. Genet. 9, 25 (2008) Barrios-Rodiles, M., et al. Science 307(5715):1621-1625(2005)

NAT8 Antibody (Center) - Citations

- The endoplasmic reticulum-based acetyltransferases, ATase1 and ATase2, associate with the oligosaccharyltransferase to acetylate correctly folded polypeptides.
- <u>Biochemical inhibition of the acetyltransferases ATase1 and ATase2 reduces β-secretase</u> (BACE1) levels and Aβ generation.