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Anti-NAT1 Picoband Antibody

Catalog # ABO10180

Product Information

Application	WB
Primary Accession	P18440
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Arylamine N-acetyltransferase 1(NAT1) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	9
Other Names	Arylamine N-acetyltransferase 1, 2.3.1.5, Arylamide acetylase 1, Monomorphic arylamine N-acetyltransferase, MNAT, N-acetyltransferase type 1, NAT-1, NAT1, AAC1
Calculated MW	33899
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Cytoplasm.
Source	Eukaryota
Protein Name	Arylamine N-acetyltransferase 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human NAT1 (172-201aa NEEFLHSDLLEDSKYRKIYSFTLKPRTIED), different from the related mouse sequence by six amino acids, and from the related rat sequence by five amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	NAT1
Synonyms	AAC1
Function	Xenobiotic-metabolizing enzyme that catalyzes both N- acetylation (usually detoxification) and O-acetylation (usually bioactivation) of a wide range of species-specific substrates including hydrazines, aromatic amine drugs and aromatic amine carcinogens (Probable) (PubMed:9168895). Transfers an acetyl group from acetyl- coenzyme A to arylamine and N-hydroxyarylamine acceptor substrates (Probable) (PubMed:9168895). Can also transfer an N-acetyl group from an N-hydroxy acetylamine to either N-hydroxyarylamine or arylamine in the absence of acetyl-coenzyme A (PubMed:9168895). Therefore, activates N-hydroxyarylamines to unstable acetoxy intermediates which decompose to electrophiles, bind to DNA, and lead to mutagenesis and carcinogenesis (PubMed:9168895). Plays a significant role in the bioactivation and detoxification of many drugs and carcinogens (Probable) (PubMed:9168895).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:P50294}.

Background

N-acetyltransferase 1 (arylamine N-acetyltransferase) is a protein that in humans is encoded by the NAT1 gene. This gene is one of two arylamine N-acetyltransferase (NAT) genes in the human genome, and is orthologous to the mouse and rat Nat2 genes. The enzyme encoded by this gene catalyzes the transfer of an acetyl group from acetyl-CoA to various arylamine and hydrazine substrates. This enzyme helps metabolize drugs and other xenobiotics, and functions in folate catabolism. Multiple transcript variants encoding different isoforms have been found for this gene.

Images



Western blot analysis of NAT1 expression in A431 whole cell lysates (lane 1). NAT1 at 34KD was detected using rabbit anti- NAT1 Antigen Affinity purified polyclonal antibody (Catalog # ABO10180) at 0.5 □¼g/mL. The blot was developed using chemiluminescence (ECL) method .

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