

# Recombinant Human NAT1, His-tagged

**Cat. No.** NAT1-3573H    **Lot. No.** (See product label)

## SPECIFICATION

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>   | Recombinant human NAT1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques (1-290 aa).                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>            | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>             | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>        | NAT1 belongs to the arylamine N-acetyltransferase family. It catalyzes N- or O-acetylation of heterocyclic and arylamine substrates in the detoxification of a wide array of drugs. Certain alleles causing high levels of N-acetyltransferase activity have been associated with colon and urinary bladder cancers, as NAT1 also bioactivate several known carcinogens. This enzyme helps metabolize drugs and other xenobiotics, and participates in the detoxification of a plethora of hydrazine and arylamine drugs. |
| <b>Form</b>               | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 2mM DTT, 0.1M NaCl.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Molecular Weight</b>   | 36.1 kDa (310aa), confirmed by MALDI-TOF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>             | > 85 % by SDS - PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Concentration</b>      | 0.5 mg/ml (determined by Bradford assay)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Sequences of amino</b> | MGSSHHHHHH SSGLVPRGSH MDIEAYLERI GYKKS RNKLD LETLTDILQH                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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**acids**

QIRAVPFENL NIHCGDAMD L GLEAIFDQVV RRNRGGWCLQ VNHLLYWALT  
TIGFETTMLG GYVYSTPAKK YSTGMIHLL QVTIDGRNYI VDAGFGRSYQ  
MWQPLELISG KDQPQVPCIF RLTEENGFWY LDQIRREQYI PNEEFLHSDL  
LEDSKYRKIY SFTLKPR TIE DFESMNTYLQ TSPASVFTSK SFCSLQTPDG  
VHCLVGFTLT HRRFNYKDNT DLIEFKTLSE EEIEKVLKNI FNISLQRKLV  
PKHGDRFFTI

**Storage**

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**GENE INFORMATION**
**Gene Name**

[NAT1 N-acetyltransferase 1 \(arylamine N-acetyltransferase\) \[ Homo sapiens \]](#)

**Official Symbol**

NAT1

**Synonyms**

NAT1; AAC1; MNAT; NATI; NAT-1; arylamine N-acetyltransferase 1;  
OTTHUMP00000122488; OTTHUMP00000224577; OTTHUMP00000224578;  
OTTHUMP00000224579; arylamide acetylase 1; N-acetyltransferase type 1;  
monomorphic arylamine N-acetyltransferase; EC 2.3.1.5; N-acetyltransferase 1  
(arylamine N-acetyltransferase); Arylamide acetylase 1; Monomorphic arylamine N-  
acetyltransferase

**Gene ID**

[9](#)

**mRNA Refseq**

[NM\\_000662](#)

**Protein Refseq**

[NP\\_000653](#)

**MIM**

[108345](#)

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|                        |                                                                                          |
|------------------------|------------------------------------------------------------------------------------------|
| UniProt ID             | P18440                                                                                   |
| Chromosome<br>Location | 8p22                                                                                     |
| Function               | acetyltransferase activity; arylamine N-acetyltransferase activity; transferase activity |

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