APG192Ra01 100μg
Active N-Acetyltransferase 2 (NAT2)
Organism Species: *Rattus norvegicus (Rat)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Asp20~Val280
Tags: N-terminal His and GST Tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.1
Predicted Molecular Mass: 60.3kDa
Accurate Molecular Mass: 60kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8ºC for one month.
Aliquot and store at -80ºC for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

D LEELTEILQH QIRAIPFENL NIHCGESMEL
NLEVIFDQVV RKKRGGWCLQ VNHLLYWALT KMGFEATMLG GYVFNTPANK
YSSGMIHLLV QVTLSGKDYI VDAGFGRSYQ MWEPLELTSG KDQPQVPAIF
RLTEENGTWY LDQIRREQYV PNQEFVNSDL LEKNKYRKIY SFTLEPRTIE
DFESINTYLQ TSPASLFTSK SFCSLQTLEG VHCLVGSTLT YRRFSYKDNI
DLVEFKSLTE EEIEDVLKTI FGVSLERKLV

[ACTIVITY]

N-Acetyltransferase 2 (NAT2)) is an enzyme that plays an important role in metabolism and detoxification of many compounds including drugs and environmental carcinogens through chemical modification of the amine group with an acetyl group. Cytochrome P4502E1 (CYP2E1) and NAT2 are related to chronic obstructive pulmonary disease and CYP2E1 can bind to NAT2. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant rat NAT2 and recombinant mouse CYP2E1. Briefly, NAT2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to CYP2E1-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-NAT2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant rat NAT2 and recombinant mouse CYP2E1 was shown in Figure 1, the EC50 for this effect is 0.096 ug/mL.

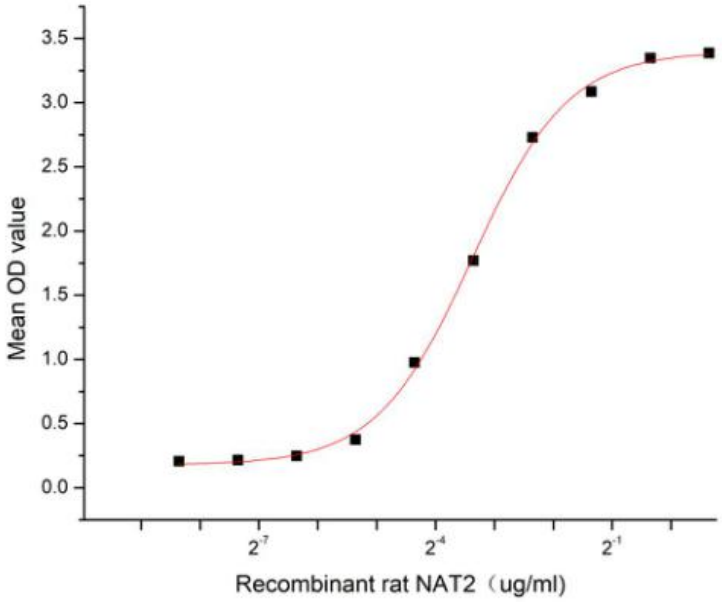

Figure 1. The binding activity of recombinant rat NAT2 and recombinant mouse CYP2E1

[IDENTIFICATION]

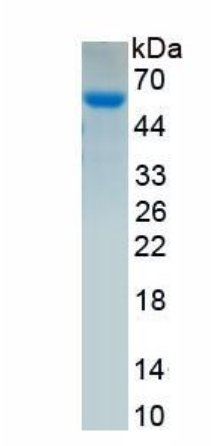

Figure 2. SDS-PAGE

Sample: Active recombinant NAT2, Rat

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.