APA879Ra01 100μg
Active Neuropeptide Y (NPY)
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: Pro31~Trp98
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% Sarcosyl, 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: 6.4
Predicted Molecular Mass: 40.8kDa
Accurate Molecular Mass: 40kDa 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]

PSKPDNPGED APAEDMARYY
SALRHYINLI TRQRYGKRSS PETLISDLLM RESTENAPRT RLEDPSMW

[ACTIVITY]

Neuropeptide Y (NPY) belongs to the NPY family of biologically active peptides, which is implicated in the control of feeding and in secretion of gonadotrophin-release hormone. NPY was firstly isolated from brain extracts and found to be one of the most abundant neuropeptides within the brain. Significant release of NPY occurs especially upon stronger sympathetic activation, and recent data suggests that the importance of NPY seems enhanced in stress-related cardiovascular disorders. To test the effect of NPY on cell proliferation, MDA-MB-231 cells were seeded into triplicate wells of 96-well plates and allowed to attach, replaced with various concentrations of recombinant rat NPY. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μl of CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37 ℃. Cell viability was assessed by CCK-8 assay after incubation with recombinant rat NPY for 72h. The result was shown in Figure 1. It was obvious that NPY significantly decreased cell viability of MDA-MB-231 cells. The ED50 of recombinant rat NPY is 1.52 μg/ml.

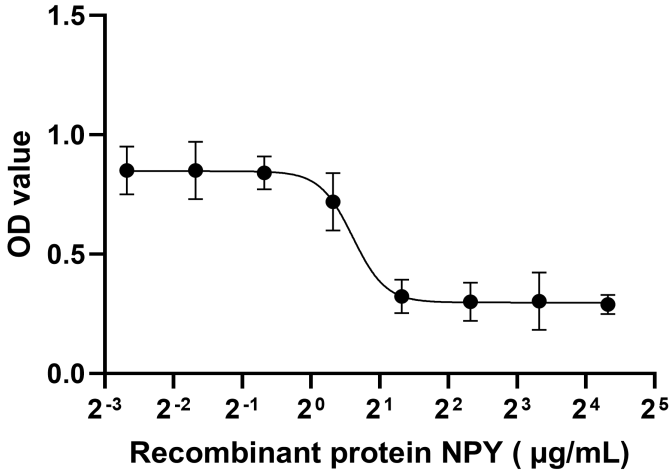

Figure1. The dose-effect curve of recombinant rat NPY on MDA-MB-231 cells

[IDENTIFICATION]

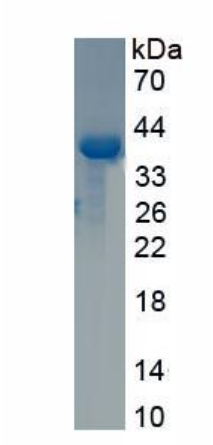

Figure 2. SDS-PAGE

Sample: Active recombinant NPY, 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.