

APC769Hu02 100µg

Active Ribophorin I (RPN1)

Organism Species: *Homo sapiens* (Human)

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: Arg180~Ile307

Tags: N-terminal His-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: 6.2

Predicted Molecular Mass: 16.0kDa

Accurate Molecular Mass: 16kDa 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 2-8°C for one month.

Aliquot and store at -80°C 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 37°C 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]

R NVESYTKLGN PTRSEDLLDY
GPF RDVPAYS QDTFKVHYEN NSPFLTITSM TRVIEVSHWG NIAVEENVDL
KHTGAVLKGP FSRDYQRQP DSGISSIRSF KTI LPAAAQD VYYRDEIGNV
STSHLLI

[ACTIVITY]

Ribophorin I (RPN1) is a key component of the 19S regulatory particle, which forms part of the 26S proteasome, a large multicatalytic complex responsible for the degradation of ubiquitinated proteins in eukaryotic cells. As a non-ATPase subunit within the regulatory particle, RPN1 plays a critical role in facilitating the recognition, unfolding, and translocation of target proteins into the 20S core particle, where proteolysis occurs. To test the effect of RPN1 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 human RPN1. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μ L 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 °C . Cell viability was assessed by CCK-8 assay after incubation with recombinant human RPN1 for 72h. The result was shown in Figure 1. It was obvious that RPN1 significantly decreased cell viability of MDA-MB-231 cells. The ED50 of recombinant human RPN1 is 1.787 μ g/mL.

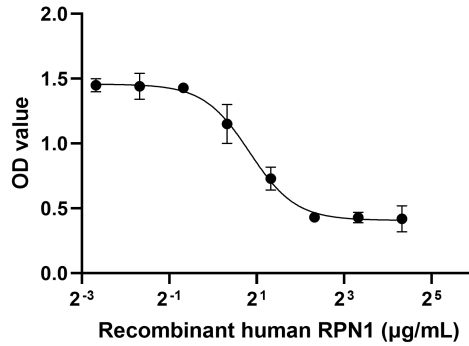


Figure.1 The dose-effect curve of recombinant human RPN1 on MDA-MB-231 cells

[IDENTIFICATION]

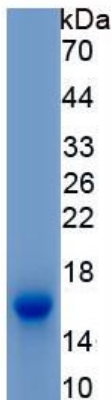


Figure 2. SDS-PAGE

Sample: Active recombinant RPN1, Human

[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.