APA147Hu02 100μg
Active Adiponectin Receptor 1 (ADIPOR1)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Met1~Gly136
Tags: Two N-terminal Tags, His-tag and MBP-tag
Purity: >98%
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays; In vivo assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.4
Predicted Molecular Mass: 65.4kDa
Accurate Molecular Mass: 63kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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]

MSSHKGSVVA QGNGAPASNR EADTVELAEL GPLLEEKGKR VIANPPKAEE
EQTCPVPQEE EEEVRVLTLP LQAHHAMEKM EEFVYKVWEG RWRVIPYDVL
PDWLKDNDYL LHGHRPPMPS FRACFKSIFR IHTETG

[ACTIVITY]

ADIPOR1 (Adiponectin receptor protein 1) is a receptor for ADP (30kDa adipocyte complement-related protein), an essential hormone secreted by adipocytes that regulates glucose and lipid metabolism. ADIPOQ-binding activates a signaling cascade that leads to increased AMPK activity, and ultimately to increased fatty acid oxidation, increased glucose uptake and decreased gluconeogenesis. Besides, human ADP and rat ADP exist similarities in amino acid sequence with the identity of 83.2%. Thus a binding ELISA assay was conducted to detect the interaction of recombinant human ADIPOR1 and recombinant rat ADP. Briefly, ADIPOR1 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to ADP-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-ADIPOR1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of of ADIPOR1 and ADP was shown in Figure 1, and this effect was in a dose dependent manner.

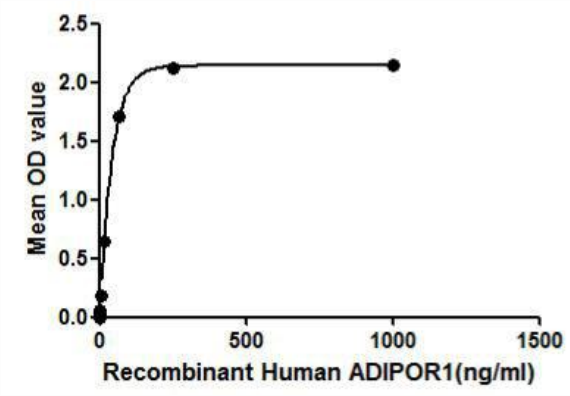

Figure 1. The binding activity of ADIPOR1 with ADP.

[IDENTIFICATION]

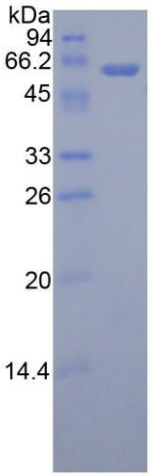

Figure 2. SDS-PAGE

Sample: Active recombinant ADIPOR1, Human

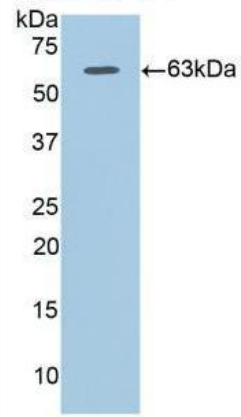

Figure 3. Western Blot

Sample: Recombinant ADIPOR1, Human;

Antibody: Rabbit Anti-Human ADIPOR1 Ab (PAA147Hu02)