

Adiponectin receptor protein 1

rev. 08/07/16

Cat#: ET1610-86

Product Type: Recombinant rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat, Zebra fish

Applications: WB, ICC/IF, IHC, FC

Molecular Wt.: 43 kDa

Description: Adiponectin is a circulating hormone secreted by adipocytes that improves the metabolism of glucose and lipids, and is expressed at low levels in those with obesity and diabetes. Adiponectin receptors AdipoR1 and AdipoR2, also designated progestin and adipoQ receptor family members I and II, respectively, regulate fatty acid oxidation and the uptake of glucose by adiponectin. Each receptor activates a unique set of signaling molecules including AMPK, p38 MAPK and PPAR α . AdipoR1 has a high-affinity for globular adiponectin and low-affinity for full-length adiponectin, while AdipoR2 has an intermediate affinity for both forms. AdipoR1 and AdipoR2 are mainly expressed in liver and muscle. Adiponectin, AdipoR1 and AdipoR2 are all associated with body composition, Insulin sensitivity, and metabolic parameters. Physical training increases circulating adiponectin and mRNA expression of AdipoR1 and AdipoR2 in muscle, which may mediate the improvement of Insulin resistance and the metabolic syndrome in response to exercise.

Immunogen:

Recombinant protein.

Positive control:

L02, HeLa, HepG2, human kidney tissue, mouse liver tissue, human skeletal muscle tissue.

Subcellular location:

Cell membrane.

Database links:

SwissProt: Q96A54 (Human) Q91VH1 (Mouse) Unigene: 104556 (Rat)

Recommended Dilutions:

WB: 1:1,000-1:5,000 **ICC:** 1:50-1:200
IHC: 1:50-1:200 **FC:** 1:50-1:100

Storage Buffer:

1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction:

Store at +4° C after thawing. Aliquot store at -20° C or -80° C. Avoid repeated freeze / thaw cycles.

Purity:

ProA affinity purified.

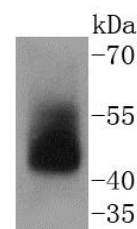


Fig1: Western blot analysis of ADIPOR1 on human skeletal muscle lysates using anti-ADIPOR1 antibody at 1/1,000 dilution.

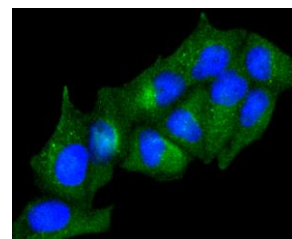


Fig2: ICC staining ADIPOR1 in HeLa cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

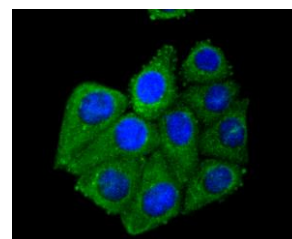


Fig3: ICC staining ADIPOR1 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

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Applications: WB=Western blot IP=Immunoprecipitation IHC=Immunohistochemistry IF=Immunofluorescence FC=Flow cytometry
Species Cross-Reactivity: H=human M=mouse R=rat Hm=hamster Mk=monkey Mi=mink C=chicken Dm=D.melanogaster X=Xenopus Z=zebrafish
B=bovine Dg=dog Pg=pig Sc=S.

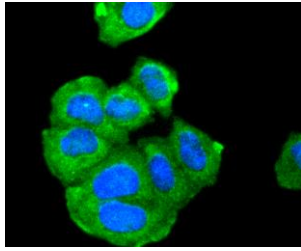


Fig4: ICC staining ADIPOR1 in L02 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

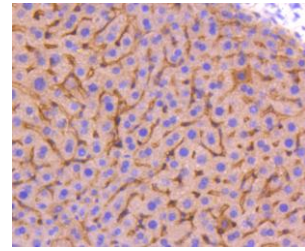


Fig6: Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-ADIPOR1 antibody. Counter stained with hematoxylin.

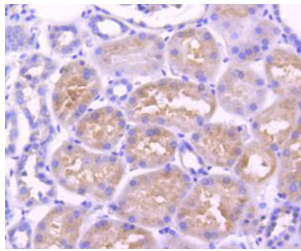


Fig5: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-ADIPOR1 antibody. Counter stained with hematoxylin.

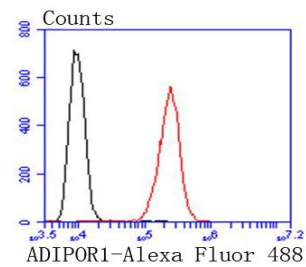


Fig7: Flow cytometric analysis of HepG2 cells with ADIPOR1 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.

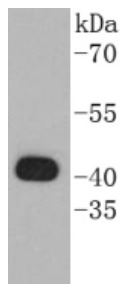


Fig8: Western blot analysis of ADIPOR1 on zebrafish tissue lysates using anti-ADIPOR1 antibody.

Background References

1. Fang F et al. Adiponectin attenuates angiotensin II-induced oxidative stress in renal tubular cells through AMPK and cAMP-Epac signal transduction pathways. *Am J Physiol Renal Physiol* 304:F1366-74 (2013).
2. Gulli RA et al. Exercise restores insulin, but not adiponectin, response in skeletal muscle of high-fat fed rodents. *Am J Physiol Regul Integr Comp Physiol* 303:R1062-70 (2012).