

Catalog #: 61502

Aliases

PRKAA1; Protein Kinase AMP-Activated Catalytic Subunit Alpha 1; 5'-AMP-Activated Protein Kinase Catalytic Subunit Alpha-1; Protein Kinase, AMP-Activated, Alpha 1 Catalytic Subunit; Hydroxymethylglutaryl-CoA Reductase Kinase; Acetyl-CoA Carboxylase Kinase; Tau-Protein Kinase PRKAA1; AMPK Subunit Alpha-1; AMPK, Alpha, 1; ACACA Kinase; HMGCR Kinase; EC 2.7.11.1; AMPKa1; 5'-AMP-Activated Protein Kinase, Catalytic Alpha-1 Chain; AMP-Activated Protein Kinase, Catalytic, Alpha-1; AMP -Activate Kinase Alpha 1 Subunit; AMPK Alpha 1; EC 2.7.11.27; EC 2.7.11.31; EC 2.7.11.26; EC 2.7.11; AMPKA1; AMPK1; AMPK

Background

Gene Name: PRKAA1 NCBI Gene Entry: 5562 UniProt Entry: Q13131

Application Information

Molecular Weight: Predicted, 64 kDa, observed, 63 kDa

Clonality: Rabbit monoclonal antibody

Clone ID: 23GB2685

Species Reactivity: Human, mouse, rat

Applications Tested: Western blotting (WB), flow cytometry (FCM), immunocytochemistry (IC)

Immunogen

A synthesized peptide derived from human AMPK alpha 1

Isotype

Rabbit IgG

Storage Buffer

Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.

Storage

Store at -20 °C for one year.

Recommended Dilutions

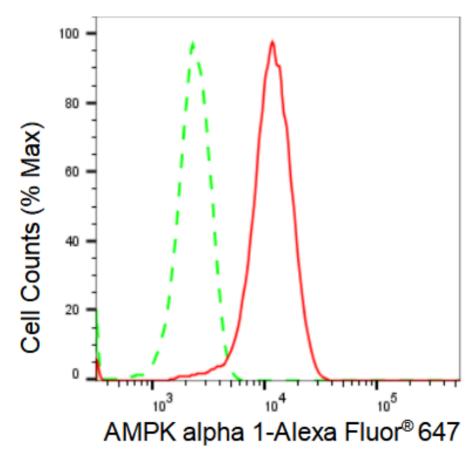
Western Blotting (WB): 1:1,000-1:5,000

Flow Cytometry (FCM): 1:2,000

Immunocytochemistry (IC): 1:100-1:1,000

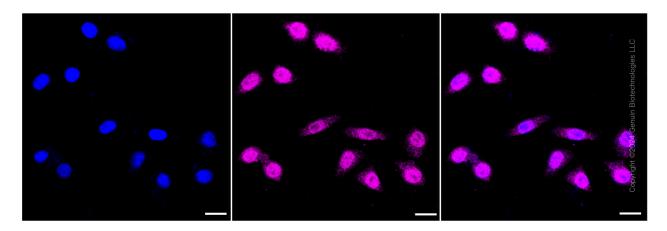
Note: This product is for research use only.

Validation Data



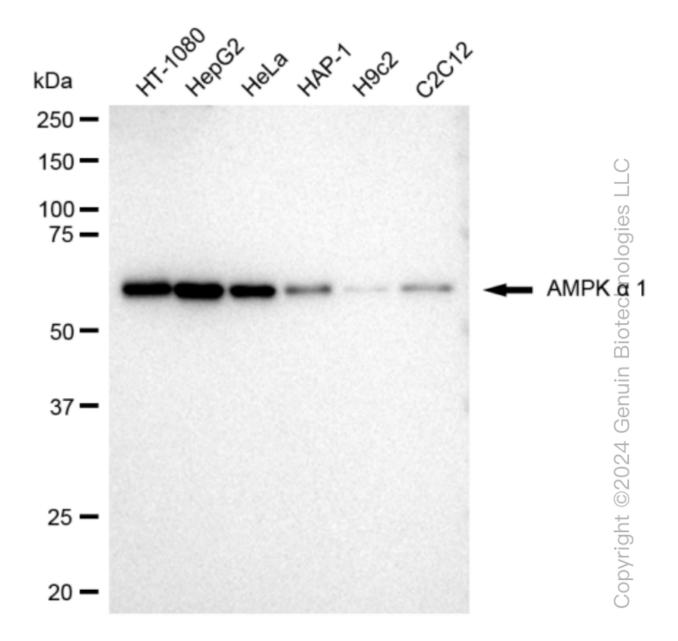
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Flow cytometric analysis of AMPK alpha 1 expression in HepG2 cells using AMPK alpha 1 antibody (Cat#61502, 1:2,000). Green, isotype control; red, AMPK alpha 1.

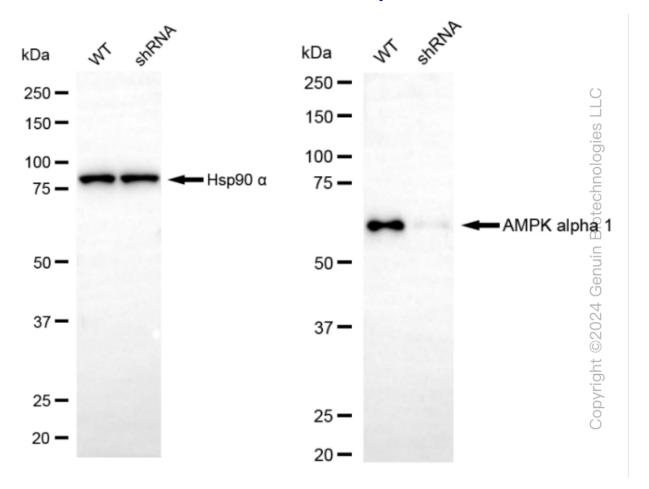


Immunocytochemical staining of HepG2 cells with AMPK alpha 1 antibody (Cat#61502, 1:1,000).

Nuclei were stained blue with DAPI; AMPK alpha 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.

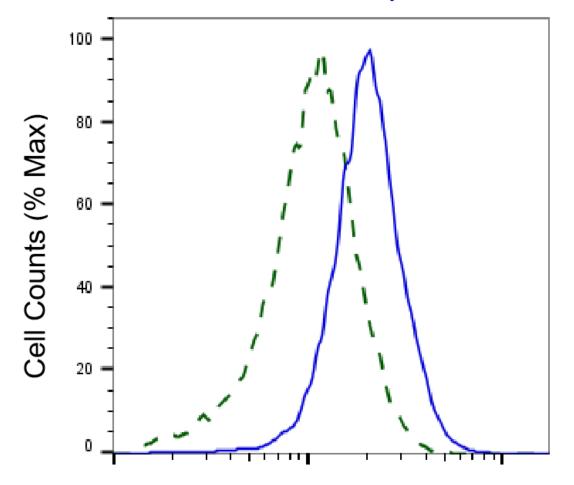


Western blotting analysis using anti-AMPK alpha 1 antibody (Cat#61502). Total cell lysates (30 μg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-AMPK alpha 1 antibody (Cat#61502, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQTM ECL Substrate Kit (Cat#226).



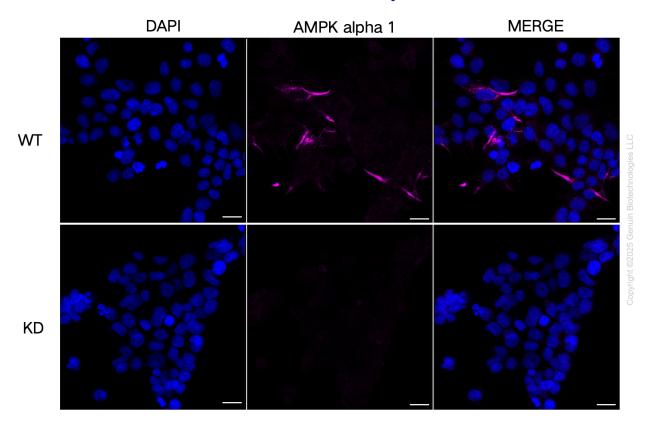
Western blotting analysis using anti-AMPK alpha 1 antibody (Cat#61502). AMPK alpha 1 expression in wild type (WT) and AMPK alpha 1 shRNA knockdown (KD) HeLa cells with 30 μg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-AMPK alpha 1 antibody (Cat#61502, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQTM ECL Substrate Kit (Cat#226).





AMPK alpha 1-Alexa Fluor® 647

Validation of AMPK alpha 1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with anti-AMPK alpha 1 antibody (Cat#61502, 1:2,000) and analyzed using BD flow cytometer.



Immunocytochemical staining of Hela cells using anti-AMPK alpha 1 antibody (Cat#61502, 1:1,000), Top panel: wild-type (WT); Bottom panal: AMPK alpha 1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; AMPK alpha 1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm.