

Basic Information

Product Name	Anti-AMPK Beta 2/PRKAB2 Antibody (Clone#6G1)
Gene Name	PRKAB2
Source	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Species Reactivity	human
Tested Application	FCM, WB
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human AMPK beta 2, different from the related mouse sequence by three amino acids, and from the related rat sequence by two amino acids.
Concentration	500 ug/ml
Purification	protein G purified.
Observed MW	34 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Flow Cytometry (Fixed):1:50-200

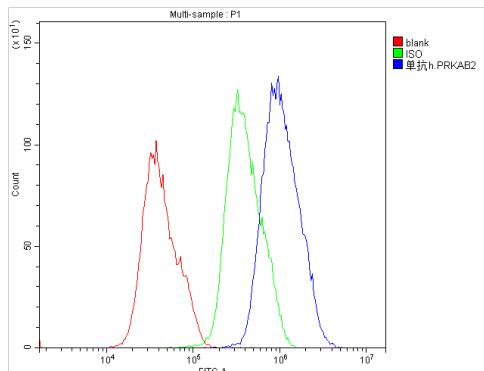
Storage

12 months from date of receipt, -20°C as supplied.

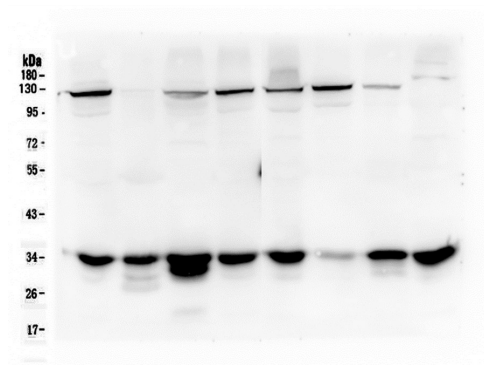
Background Information

5'-AMP-activated protein kinase subunit beta-2 is an enzyme that in humans is encoded by the PRKAB2 gene. The protein encoded by this gene is a regulatory subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. It is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. This subunit may be a positive regulator of AMPK activity. It is highly expressed in skeletal muscle and thus may have tissue-specific roles. Multiple alternatively spliced transcript variants have been found for this gene.

Selected Validation Data



Flow Cytometry analysis of PC-3 cells using anti-AMPK beta 2 antibody (M05077). Overlay histogram showing PC-3 cells stained with M05077 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-AMPK beta 2 Antibody (M05077, 1:100) for 30 min at 20°C. DyLight488 conjugated goat anti-mouse IgG (BA1126, 1:100) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1:100) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Western blot analysis of AMPK Beta 2/PRKAB2 using anti-AMPK Beta 2/PRKAB2 antibody (M05077). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human placenta tissue lysates,
Lane 3: human 293T whole cell lysates,
Lane 4: human A549 whole cell lysates,
Lane 5: human A375 whole cell lysates,
Lane 6: human A431 whole cell lysates,
Lane 7: human U2OS whole cell lysates,
Lane 8: human K562 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-AMPK Beta 2/PRKAB2 antigen affinity purified monoclonal antibody (M05077) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for AMPK Beta 2/PRKAB2 at approximately 34 kDa. The expected band size for AMPK Beta 2/PRKAB2 is at 30 kDa.