AMPKβ1 (phospho Ser182) rabbit pAb

Cat#: orb769610 (Manual)

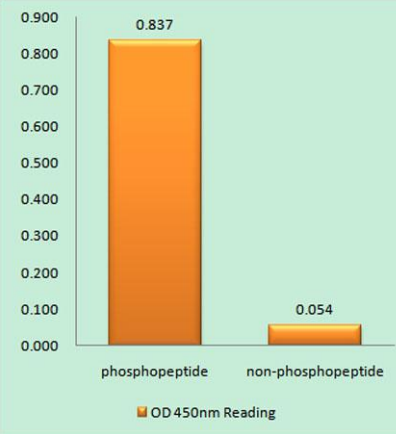
For research use only. Not intended for diagnostic use.

Product Name	AMPKβ1 (phospho Ser182) rabbit pAb
Host species	Rabbit
Applications	WB;IHC;IF;ELISA
Species Cross-Reactivity	Human;Mouse;Rat;Monkey
Recommended dilutions	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications.
Immunogen	The antiserum was produced against synthesized peptide derived from human AMPK beta1 around the phosphorylation site of Ser181. AA range:147-196
Specificity	Phospho-AMPKβ1 (S182) Polyclonal Antibody detects endogenous levels of AMPKβ1 protein only when phosphorylated at S182.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide..
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	5'-AMP-activated protein kinase subunit beta-1
Gene Name	PRKAB1
Cellular localization	nucleus,nucleoplasm,cytosol,nucleotide-activated protein kinase complex,
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal

Concentration	1 mg/ml
Observed band	33kD
Human Gene ID	5564
Human Swiss-Prot Number	Q9Y478
Alternative Names	PRKAB1; AMPK; 5'-AMP-activated protein kinase subunit beta-1; AMPK subunit beta-1; AMPKb

Background

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. AMPK 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. The myristoylation and phosphorylation of this subunit have been shown to affect the enzyme activity and cellular localization of AMPK. This subunit may also serve as an adaptor molecule mediating the association of the AMPK complex. [provided



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using AMPK beta1 (Phospho-Ser181) Antibody

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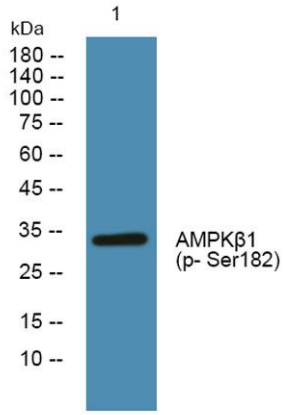
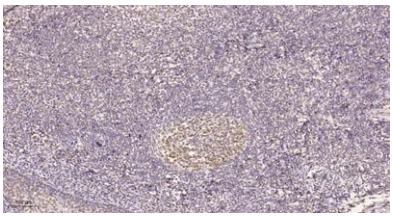


Western blot analysis of lysates from SH-SY5Y cells, primary antibody was diluted at 1:1000, 4°over night



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Tris-EDTA,pH9.0 was used for antigen retrieval. 2 Antibody was diluted at 1:200(4° overnight.3,Secondary antibody was diluted at 1:200(room temperature, 45min).

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