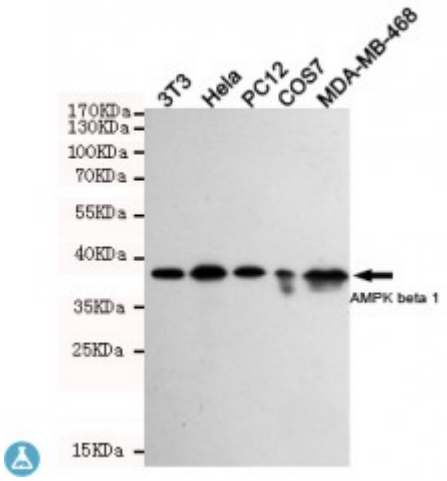
Anti-AMP beta 1 antibody



Description	Mouse monoclonal to AMPKbeta 1.

Model	STJ99185
Host	Mouse
Reactivity	Human, Mouse, Rat, Simian
Applications	ELISA, WB
Immunogen	Purified recombinant human AMPK beta 1 protein fragments expressed in E.coli.
Gene ID	5564
Gene Symbol	PRKAB1
Dilution range	WB 1:500-2000ELISA 1:10000-20000
Specificity	This antibody detects endogenous levels of AMPK beta 1 and does not cross-react with related proteins.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clone ID	1A7-E11-E9
Note	For Research Use Only (RUO).
Protein Name	5'-AMP-activated protein kinase subunit beta-1 AMPK subunit beta-1 AMPKb
Molecular Weight	38kDa
Clonality	Monoclonal

Conjugation	Unconjugated
Isotype	IgG2a
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:9378OMIM:602740
Alternative Names	5'-AMP-activated protein kinase subunit beta-1 AMPK subunit beta-1 AMPKb
Function	Non-catalytic subunit of AMP-activated protein kinase (AMPK), an energy sensor protein kinase that plays a key role in regulating cellular energy metabolism. In response to reduction of intracellular ATP levels, AMPK activates energy-producing pathways and inhibits energy-consuming processes: inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation. AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators. Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton; probably by indirectly activating myosin. Beta non-catalytic subunit acts as a scaffold on which the AMPK complex assembles, via its C-terminus that bridges alpha (PRKAA1 or PRKAA2) and gamma subunits (PRKAG1, PRKAG2 or PRKAG3).
Sequence and Domain Family	The glycogen-binding domain may target AMPK to glycogen so that other factors like glycogen-bound debranching enzyme or protein phosphatases can directly affect AMPK activity.
Post-translational Modifications	Phosphorylated when associated with the catalytic subunit (PRKAA1 or PRKAA2). Phosphorylated by ULK1; leading to negatively regulate AMPK activity and suggesting the existence of a regulatory feedback loop between ULK1 and AMPK.