

## Product datasheet for **TP318572M**

### AMPK alpha 1 (PRKAA1) (NM\_006251) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human protein kinase, AMP-activated, alpha 1 catalytic subunit (PRKAA1), transcript variant 1, 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC218572 representing NM_006251 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MRRLSSWRKMATAEKQKHDGRVKIGHYILGDTLGVGTFGKVKVKGKHELTGHKQVAVKILNRQKIRSLDWVG  
KIRREIQNLKLFRRPHIHKLYQVISTPSDIFMVMMEYVSGGELFDYICKNGRLDEKESRRLFQQILSGVDY  
CHRHMVVHRDLKPENVLLDAHMANAKIADFGLSNMMSDGEFLRTSCGSPNYAAPEVISGRLYAGPEVDIWS  
SGVILYALLCGTLPFDDDHVPTLFKKICDGFYTPQYLNPSVISLLKHMLQVDPMKRATIKDIREHEWFK  
QDLPKYLFPEDPSYSSTMIDDEALKEVCEKFECSSEEVLSCLYNRNHQDPLAVAYHLLIDNRRIMNEAKD  
FYLATSPDSDLDDHHLTRPHPERVPFLVAETPRARHTLDELNPQKSKHQGVRKAKWHLGIRSQSRPNDI  
MAEVCRAIKQLDYEWKVVNPYYLRVRRKNPVTSTYSKMSLQLYQVDSRTYLLDFRSIDDEITEAKSGTAT  
PQRSGSVSNYRSCQRSDSDAEAQGSSEVSLTSSVTSLDSSPVDLTPRPGSHTIEFFEMCANLIKILAQ

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

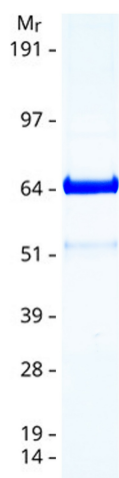
Tag:	C-Myc/DDK
Predicted MW:	63.8 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.



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<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_006242</a>
<b>Locus ID:</b>	5562
<b>UniProt ID:</b>	<a href="#">Q13131</a>
<b>RefSeq Size:</b>	5085
<b>Cytogenetics:</b>	5p13.1
<b>RefSeq ORF:</b>	1677
<b>Synonyms:</b>	AMPK; AMPKa1; AMPK alpha 1
<b>Summary:</b>	The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway, mTOR signaling pathway, Regulation of autophagy

### Product images:



Coomassie blue staining of purified PRKAA1 protein (Cat# [TP318572]). The protein was produced from HEK293T cells transfected with PRKAA1 cDNA clone (Cat# [RC218572]) using MegaTran 2.0 (Cat# [TT210002]).