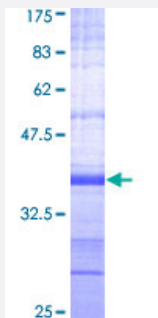


PRKAA2 (Human) Recombinant Protein (Q01)

Catalog # H00005563-Q01

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human PRKAA2 partial ORF (NP_006243, 453 a.a. - 552 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MSLQLYLVDNRSYLLDFKSIDDEVVEQRSGSSTPQRSCSAAGLHRPRSSFDDSTTAESHSLSGSLT GSLTGSTLSSVSPRLGSHTMDFFEMCASLITTLAR
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	36.74
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — PRKAA2

Entrez GeneID [5563](#)

GeneBank Accession# [NM_006252](#)

Protein Accession# [NP_006243](#)

Gene Name PRKAA2

Gene Alias AMPK, AMPK2, PRKAA

Gene Description protein kinase, AMP-activated, alpha 2 catalytic subunit

Omim ID [600497](#)

Gene Ontology [Hyperlink](#)

Gene Summary The protein encoded by this gene is a catalytic subunit of the AMP-activated protein kinase (AMP K). 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 (HMG CR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia. [provided by RefSeq]

Other Designations 5'-AMP-activated protein kinase, catalytic alpha-2 chain|AMP-activated protein kinase alpha 2 catalytic subunit|AMPK-alpha-2 chain|OTTHUMP00000009993

Pathway

- [Adipocytokine signaling pathway](#)

- [Hypertrophic cardiomyopathy \(HCM\)](#)
- [Insulin signaling pathway](#)
- [mTOR signaling pathway](#)
- [Regulation of autophagy](#)

Disease

- [Atherosclerosis](#)
- [Calcinosis](#)
- [Cardiovascular Diseases](#)
- [Coronary Artery Disease](#)
- [Diabetes Mellitus](#)
- [Drug Toxicity](#)
- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Hypercholesterolemia](#)
- [Insulin Resistance](#)