



# Anti-PRKAA2 polyclonal antibody, clone O4D3 (DPABY-710)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Antigen Description</b>	The protein encoded by this gene is a catalytic 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. 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]
<b>Immunogen</b>	Recombinant fragment corresponding to a region within amino acids 202 and 457 of AMPK alpha 2 (Uniprot ID#P54646)
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human
<b>Clone</b>	O4D3
<b>Purification</b>	Purified by antigen-affinity chromatography.
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	ELISA Pr*, IHC-P, WB
<b>Molecular Weight</b>	62 kDa
<b>Positive Control</b>	HepG2

<b>Format</b>	Liquid
<b>Concentration</b>	1 mg/ml
<b>Size</b>	25 µl
<b>Buffer</b>	1XPBS, 1%BSA, 20% Glycerol (pH7). 0.01% Thimerosal was added as a preservative.
<b>Preservative</b>	None
<b>Storage</b>	Keep as concentrated solution. Aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">PRKAA2 protein kinase, AMP-activated, alpha 2 catalytic subunit [ Homo sapiens (human) ]</a>
<b>Official Symbol</b>	PRKAA2
<b>Synonyms</b>	PRKAA2; protein kinase, AMP-activated, alpha 2 catalytic subunit; AMPK; AMPK2; PRKAA; AMPKa2; 5-AMP-activated protein kinase catalytic subunit alpha-2; ACACA kinase; HMGCR kinase; AMPK-alpha-2 chain; AMPK subunit alpha-2; acetyl-CoA carboxylase kinase; hy
<b>Entrez Gene ID</b>	<a href="#">5563</a>
<b>Protein Refseq</b>	<a href="#">NP_006243</a>
<b>UniProt ID</b>	<a href="#">P54646</a>
<b>Chromosome Location</b>	1p31
<b>Pathway</b>	AMPK inhibits chREBP transcriptional activation activity; AMPK signaling; AMPK signaling pathway; Activation of PPARGC1A (PGC-1alpha) by phosphorylation; Adipocytokine signaling pathway; BDNF signaling pathway; Circadian rhythm; Corticotropin-releasing ho
<b>Function</b>	AMP-activated protein kinase activity; ATP binding; [acetyl-CoA carboxylase] kinase activity; [hydroxymethylglutaryl-CoA reductase (NADPH)] kinase activity; chromatin binding; histone serine kinase activity; metal ion binding; protein binding; protein kin