

## Anti-PRKAG2 Antibody

Catalog Number: A02758

### About PRKAG2

AMP/ATP-binding 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. Gamma non-catalytic subunit mediates binding to AMP, ADP and ATP, leading to activate or inhibit AMPK: AMP-binding results in allosteric activation of alpha catalytic subunit (PRKAA1 or PRKAA2) both by inducing phosphorylation and preventing dephosphorylation of catalytic subunits. ADP also stimulates phosphorylation, without stimulating already phosphorylated catalytic subunit. ATP promotes dephosphorylation of catalytic subunit, rendering the AMPK enzyme inactive.

Cheung P.C.F., Biochem. J. 346:659-669(2000).

Lang T.M., Genomics 70:258-263(2000).

Ota T., Nat. Genet. 36:40-45(2004).

### Overview

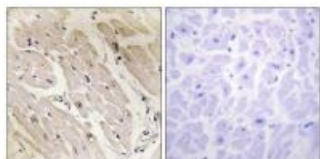
Product Name	Anti-PRKAG2 Antibody
Reactive Species	Human
Description	Boster Bio Anti-PRKAG2 Antibody (Catalog # A02758). Tested in WB, IHC, IF applications. This antibody reacts with Human.
Application	IF, IHC, WB
Clonality	Polyclonal
Formulation	Rabbit IgG in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9UGJ0

### Technical Details

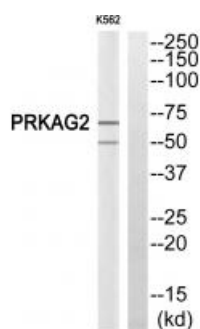
Immunogen	Synthesized peptide derived from internal of human PRKAG2.
Predicted Reactive Species	Boar, Bovine, Canine, Golden Hamster
Isotype	IgG

Form	Liquid
Concentration	1 mg/ml
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blotting: 1:500~1:3000</p> <p>Immunohistochemistry: 1:50~1:100</p> <p>Immunofluorescence: 1:100~1:500</p>

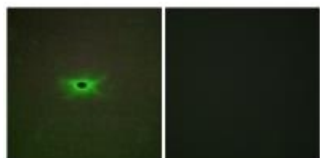
## Anti-PRKAG2 Antibody (A02758) Images



Immunohistochemistry analysis of paraffin-embedded human heart tissue, using PRKAG2 antibody A02758.



Western blot analysis of extracts from K562 cells, using PRKAG2 antibody A02758.



Immunofluorescence analysis of A549 cells, using PRKAG2 antibody A02758.

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