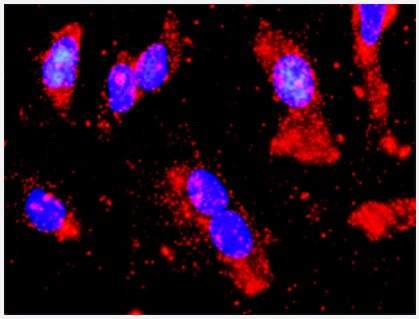
STK11 & PRKAA2 Protein Protein Interaction Antibody Pair

Catalog # DI0500 Size 1 Set

Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between STK11 and PRKAA2. HeLa cells were stained with anti-STK11 rabbit purified polyclonal antibody 1:1200 and anti-PRKAA2 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

Specification

Product Description	This protein protein interaction antibody pair set comes with two antibodies to detect the protein-protein interaction, one against the STK11 protein, and the other against the PRKAA2 protein for use in *in situ* Proximity Ligation Assay. See Publication Reference below.
Reactivity	Human
Quality Control Testing	Protein protein interaction immunofluorescence result. Representative image of Proximity Ligation Assay of protein-protein interactions between STK11 and PRKAA2. HeLa cells were stained with anti-STK11 rabbit purified polyclonal antibody 1:1200 and anti-PRKAA2 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.
Supplied Products	Antibody pair set content: 1. STK11 rabbit purified polyclonal antibody (100 ug) 2. PRKAA2 mouse monoclonal antibody (40 ug) *Reagents are sufficient for at least 30-50 assays using recommended protocols.
Storage Instruction	Store reagents of the antibody pair set at -20°C or lower. Please aliquot to avoid repeated freeze thaw cycle. Reagents should be returned to -20°C storage immediately after use.

Applications

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- *In situ* Proximity Ligation Assay (Cell)

Gene Info — PRKAA2

Entrez GeneID	5563
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 (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
Other Designations	5'-AMP-activated protein kinase, catalytic alpha-2 chain|AMP-activated protein kinase alpha 2 catalytic subunit|AMPK-alpha-2 chain|OTTHUMP00000009993

Gene Info — STK11

Entrez GeneID	6794
Gene Name	STK11
Gene Alias	LKB1, PJS
Gene Description	serine/threonine kinase 11
Omim ID	175200 273300 602216
Gene Ontology	Hyperlink

Copyright © 2023 Abnova Corporation. All Rights Reserved.

Gene Summary	This gene, which encodes a member of the serine/threonine kinase family, regulates cell polarity and functions as a tumor suppressor. Mutations in this gene have been associated with Peutz-Jeg hers syndrome, an autosomal dominant disorder characterized by the growth of polyps in the gast rointestinal tract, pigmented macules on the skin and mouth, and other neoplasms. Alternate trans criptional splice variants of this gene have been observed but have not been thoroughly characteri zed. [provided by RefSeq
Other Designations	polarization-related protein LKB1|serine/threonine protein kinase 11

Publication Reference

- Spatially resolved subcellular protein-protein interactomics in drug-perturbed lung-cancer cultures and tissues.

  Shuangyi Cai, Thomas Hu, Abhijeet Venkataraman, Felix G Rivera Moctezuma, Efe Ozturk, Nicholas Zhang , Mingshuang Wang, Tatenda Zvidzai, Sandip Das, Adithya Pillai, Frank Schneider, Suresh S Ramalingam, You-Take Oh, Shi-Yong Sun, Ahmet F Coskun.

  Nature biomedical engineering 2025 Jul; 9(7):1039.

  Application: PLA-Ce, Human, HCC827 cells

- Graph-Based Spatial Proximity of Super-Resolved Protein–Protein Interactions Predicts Cancer Drug Responses in Single Cells.

  Nicholas Zhang, Shuangyi Cai, Mingshuang Wang, Thomas Hu, Frank Schneider, Shi-Yong Sun, Ahmet F Coskun

  Cellular and molecular bioengineering 2024 Oct; 17(5):467-490.

- Graph-Based Spatial Proximity of Super-Resolved Protein-Protein Interactions Predicts Cancer Drug Responses in Single Cells.

  Nicholas Zhang, Shuangyi Cai, Mingshuang Wang, Thomas Hu, Frank Schneider, Shi-Yong Sun, Ahmet F Coskun.

  Cellular and Molecular Bioengineering 2024 Oct; 17(5):467.

  Application: IF, Human, HCC827 cell line

Pathway

- Adipocytokine signaling pathway
- Adipocytokine signaling pathway
- Hypertrophic cardiomyopathy (HCM)
- Insulin signaling pathway
- mTOR signaling pathway
- mTOR signaling pathway

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Regulation of autophagy

Disease

- Adenocarcinoma
- Alzheimer disease
- Atherosclerosis
- Breast cancer
- Breast Neoplasms
- Calcinosis
- Carcinoma
- Cardiovascular Diseases
- Cardiovascular Diseases
- Colonic Neoplasms
- Colonic Polyps
- Coronary Artery Disease
- Diabetes Complications
- Diabetes Mellitus
- Diabetes Mellitus
- Drug Toxicity
- Edema
- Gastrointestinal Neoplasms
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Hyperandrogenism
- Hypercholesterolemia
- Hyperinsulinism

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Insulin Resistance
- Insulin Resistance
- Long QT syndrome
- Lung Neoplasms
- Metabolic Syndrome X
- Neoplasms
- Osteoporosis
- Pancreatic cancer
- Pancreatic Neoplasms
- Peutz-Jeghers Syndrome
- Polycystic Ovary Syndrome
- Pulmonary Disease
- Torsades de Pointes
- Urinary Bladder Neoplasms
- Werner syndrome

Copyright © 2023 Abnova Corporation. All Rights Reserved.