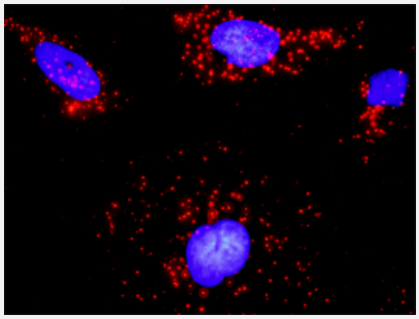
CDC42 & ARHGEF6 Protein Protein Interaction Antibody Pair

Catalog # DI0596 Size 1 Set

Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between CDC42 and ARHGEF6. HeLa cells were stained with anti-CDC42 rabbit purified polyclonal antibody 1:1200 and anti-ARHGEF6 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 CDC42 protein, and the other against the ARHGEF6 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 CDC42 and ARHGEF6. HeLa cells were stained with anti-CDC42 rabbit purified polyclonal antibody 1:1200 and anti-ARHGEF6 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 Product	Antibody pair set content: 1. CDC42 rabbit purified polyclonal antibody (100 ug) 2. ARHGEF6 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

- *In situ* Proximity Ligation Assay (Cell)

Gene Info — CDC42

Entrez GeneID	998
Gene Name	CDC42
Gene Alias	CDC42Hs, G25K
Gene Description	cell division cycle 42 (GTP binding protein, 25kDa)
Omim ID	116952
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a small GTPase of the Rho-subfamily, which regulates signaling pathways that control diverse cellular functions including cell morphology, migration, endocytosis and cell cycle progression. This protein is highly similar to Saccharomyces cerevisiae Cdc 42, and is able to complement the yeast cdc42-1 mutant. The product of oncogene Dbl was reported to specifically catalyze the dissociation of GDP from this protein. This protein could regulate actin polymerization through its direct binding to Neural Wiskott-Aldrich syndrome protein (N-WASP), which subsequently activates Arp2/3 complex. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq
Other Designations	GTP-binding protein, 25kD|OTTHUMP00000002834|OTTHUMP00000002926|cell division cycle 42|cell division cycle 42 (GTP binding protein, 25kD)|cell division cycle 42 (GTP-binding protein, 25kD)|dJ224A6.1.1 (cell division cycle 42 (GTP-binding protein, 25kD))|d

Gene Info — ARHGEF6

Entrez GeneID	9459
Gene Name	ARHGEF6
Gene Alias	COOL2, Cool-2, KIAA0006, MRX46, PIXA, alpha-PIX, alphaPIX
Gene Description	Rac/Cdc42 guanine nucleotide exchange factor (GEF) 6
Omim ID	300267 300436
Gene Ontology	Hyperlink

Gene Summary	Rho GTPases play a fundamental role in numerous cellular processes that are initiated by extrace llular stimuli that work through G protein coupled receptors. The encoded protein belongs to a fam ily of cytoplasmic proteins that activate the Ras-like family of Rho proteins by exchanging bound G DP for GTP. It may form a complex with G proteins and stimulate Rho-dependent signals. This pro tein is activated by PI3-kinase. Mutations in this gene can cause X-chromosomal non-specific me ntal retardation. [provided by RefSeq
Other Designations	OTTHUMP00000062283|PAK-interacting exchange factor, alpha|Rac/Cdc42 guanine exchange f actor (GEF) 6|Rac/Cdc42 guanine nucleotide exchange factor 6|mental retardation, X-linked 46|rh o guanine nucleotide exchange factor 6

Pathway

- Adherens junction
- Axon guidance
- Chemokine signaling pathway
- Endocytosis
- Epithelial cell signaling in Helicobacter pylori infection
- Fc gamma R-mediated phagocytosis
- Focal adhesion
- GnRH signaling pathway
- Leukocyte transendothelial migration
- MAPK signaling pathway
- Neurotrophin signaling pathway
- Pancreatic cancer
- Pancreatic cancer
- Pathogenic Escherichia coli infection - EHEC
- Pathways in cancer
- Regulation of actin cytoskeleton
- Regulation of actin cytoskeleton
- Renal cell carcinoma

- T cell receptor signaling pathway
- Tight junction
- VEGF signaling pathway

Disease

- Angina Pectoris
- Coronary Vasospasm
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Hepatitis B
- HIV Infections
- Multiple Sclerosis
- Parkinson disease