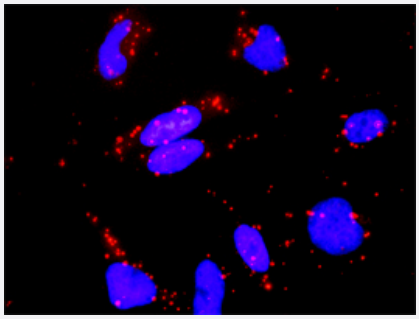
RASGRP4 & RAP1A Protein Protein Interaction Antibody Pair

Catalog # DI0517 Size 1 Set

Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between RASGRP4 and RAP1A. HeLa cells were stained with anti-RASGRP4 rabbit purified polyclonal antibody 1:1200 and anti-RAP1A 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 RASGRP4 protein, and the other against the RAP1A 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 RASGRP4 and RAP1A. HeLa cells were stained with anti-RASGRP4 rabbit purified polyclonal antibody 1:1200 and anti-RAP1A 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. RASGRP4 rabbit purified polyclonal antibody (100 ug) 2. RAP1A 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

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- *In situ* Proximity Ligation Assay (Cell)

Gene Info — RAP1A

Entrez GeneID	5906
Gene Name	RAP1A
Gene Alias	KREV-1, KREV1, RAP1, SMGP21
Gene Description	RAP1A, member of RAS oncogene family
Omim ID	179520
Gene Ontology	Hyperlink
Gene Summary	The product of this gene belongs to the family of RAS-related proteins. These proteins share approximately 50% amino acid identity with the classical RAS proteins and have numerous structural features in common. The most striking difference between RAP proteins and RAS proteins resides in their 61st amino acid: glutamine in RAS is replaced by threonine in RAP proteins. The product of this gene counteracts the mitogenic function of RAS because it can interact with RAS GAPs and RAF in a competitive manner. Two transcript variants encoding the same protein have been identified for this gene. [provided by RefSeq
Other Designations	OTTHUMP00000013740|OTTHUMP00000013741|OTTHUMP00000059089|RAS-related protein RAP1A|Ras-related protein Krev-1|Ras-related protein Rap-1A

Gene Info — RASGRP4

Entrez GeneID	115727
Gene Name	RASGRP4
Gene Alias	-
Gene Description	RAS guanyl releasing protein 4
Omim ID	607320
Gene Ontology	Hyperlink

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Gene Summary	The protein encoded by this gene is a member of the Ras guanyl nucleotide-releasing protein (RasGRP) family of Ras guanine nucleotide exchange factors. It contains a Ras exchange motif, a diacylglycerol-binding domain, and two calcium-binding EF hands. This protein was shown to activate H-Ras in a cation-dependent manner in vitro. Expression of this protein in myeloid cell lines was found to be correlated with elevated level of activated RAS protein, and the RAS activation can be greatly enhanced by phorbol ester treatment, which suggested a role of this protein in diacylglycerol regulated cell signaling pathways. Studies of a mast cell leukemia cell line expressing substantial amounts of abnormal transcripts of this gene indicated that this gene may play an important role in the final stages of mast cell development. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq
Other Designations	guanyl nucleotide releasing protein 4

Pathway

- Chemokine signaling pathway
- Focal adhesion
- Leukocyte transendothelial migration
- Long-term potentiation
- MAPK signaling pathway
- MAPK signaling pathway
- Neurotrophin signaling pathway
- Renal cell carcinoma

Disease

- Asthma
- Carcinoma
- Genetic Predisposition to Disease
- Osteoporosis
- Thyroid Neoplasms

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