10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IQGAP1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51287

Product Information

Application	WB
Primary Accession	P46940
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	189252

Additional Information

Gene ID	8826
Other Names	Ras GTPase-activating-like protein IQGAP1, p195, IQGAP1, KIAA0051
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	IQGAP1
Synonyms	KIAA0051
Function	Plays a crucial role in regulating the dynamics and assembly of the actin cytoskeleton. Recruited to the cell cortex by interaction with ILK which allows it to cooperate with its effector DIAPH1 to locally stabilize microtubules and allow stable insertion of caveolae into the plasma membrane (By similarity). Binds to activated CDC42 but does not stimulate its GTPase activity. Associates with calmodulin. May promote neurite outgrowth (PubMed:15695813). May play a possible role in cell cycle regulation by contributing to cell cycle progression after DNA replication arrest (PubMed:20883816).
Cellular Location	Cell membrane. Nucleus. Cytoplasm. Cytoplasm, cell cortex {ECO:0000250|UniProtKB:Q9JKF1}. Apical cell membrane. Basolateral cell membrane {ECO:0000250|UniProtKB:Q9JKF1}. Note=Subcellular distribution is regulated by the cell cycle, nuclear levels increase at G1/S phase (PubMed:20883816).
Tissue Location	Expressed in the placenta, lung, and kidney (PubMed:8051149). A lower level

expression is seen in the heart, liver, skeletal muscle and pancreas (PubMed:8051149)

Background

Binds to activated CDC42 but does not stimulate its GTPase activity. It associates with calmodulin. Could serve as an assembly scaffold for the organization of a multimolecular complex that would interface incoming signals to the reorganization of the actin cytoskeleton at the plasma membrane. May promote neurite outgrowth.

References

Weissbach L.,et al.J. Biol. Chem. 269:20517-20521(1994).
Nomura N.,et al.DNA Res. 1:223-229(1994).
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Grohmanova K.,et al.J. Biol. Chem. 279:48495-48504(2004).