Revision 1

Store at -20C

#13074

IQGAP2 (D1X8U) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	180	Rabbit IgG	#Q13576	10788

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

IQGAP2 (D1X8U) Rabbit mAb recognizes endogenous levels of total IQGAP2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human IQGAP2 protein.

Background

IQGAPs are scaffolding proteins involved in mediating cytoskeletal function. They contain multiple protein interaction domains and bind to a growing number of molecules including actin, myosin light chain, calmodulin, E-cadherin, and β-catenin (reviewed in 1). Through their GAP-related domains, they bind the small GTPases Rac1 and cdc42. IQGAPs lack GAP activity, however, and regulate small GTPases by stabilizing their GTP-bound (active) forms (2,3). Research studies have shown that the function and distribution of the IQGAP proteins widely vary. IQGAP1 is ubiquitously expressed and has been found to interact with APC (4) and the CLIP170 complex (5) in response to small GTPases, promoting cell polarization and migration. Additional research studies have suggested that IQGAP1 could play a part in the invasiveness of some cancers (6-8). IQGAP2, which is about 60% identical to IQGAP1, is expressed primarily in liver (3), but lower levels have been detected in the prostate, kidney, thyroid, stomach, and testis (9,10). Research studies have shown that IQGAP2 displays tumor suppressor properties (7). Less is known about the function of IQGAP3, but this protein is present in the lung, brain, small intestine, and testis (9) and is only expressed in proliferating cells (11), suggesting a role in cell growth and division.

Background References

1. Briggs, M.W. and Sacks, D.B. (2003) *EMBO Rep* 4, 571-4.
2. Ho, Y.D. et al. (1999) *J Biol Chem* 274, 464-70.
3. Brill, S. et al. (1996) *Mol Cell Biol* 16, 4869-78.
4. Watanabe, T. et al. (2004) *Dev Cell* 7, 871-83.
5. Fukata, M. et al. (2002) *Cell* 109, 873-85.
6. Chew, C.S. et al. (2005) *Am J Physiol Gastrointest Liver Physiol* 288, G376-87.
7. Jin, S.H. et al. (2008) *Int J Cancer* 122, 1040-6.
8. Liu, Z. et al. (2010) *Clin Cancer Res* 16, 6009-18.
9. Wang, S. et al. (2007) *J Cell Sci* 120, 567-77.
10. Schmidt, V.A. et al. (2003) *Blood* 101, 3021-8.
11. Nojima, H. et al. (2008) *Nat Cell Biol* 10, 971-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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