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## Ras-GRF1 Antibody

**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W	<b>Reactivity:</b> M	<b>Sensitivity:</b> Transfected Only	<b>MW (kDa):</b> 155	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P27671	<b>Entrez-Gene Id:</b> 19417
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### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

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

### Specificity/Sensitivity

Ras-GRF1 Antibody detects transfected levels of Ras-GRF1. This antibody does not cross-react with Ras-GRF2.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino-terminal residues of mouse Ras-GRF1. Antibodies are purified by protein A and peptide affinity chromatography.

### Background

Ras activity is regulated by GAP (GTPase activating proteins) and GEFs (guanine nucleotide exchange factors). Ras-GRF1 (also known as CDC25Mm) is neuronal RasGEF and is regulated by heterotrimeric G proteins and calcium influx (1,2). Binding to calmodulin and phosphorylation stimulate Ras-GRF1 activity (1,2). Multiple PKA phosphorylation sites on Ras-GRF have been identified. Phosphorylation on the two major sites, Ser54 and Ser822, inhibits Ras-GRF activity (3). Carcholol (a muscarinic agonist)-induced phosphorylation on Ser916 is essential but not sufficient for maximal Ras-GRF activity (4). It has been reported that Ras-GRF1 also shows GEF activity toward Rac after phosphorylation by the tyrosine kinase Src (5).

### Background References

1. Mattingly, R.R. and Macara, I.G. (1996) *Nature* 382, 268-72.
2. Farnsworth, C.L. et al. (1995) *Nature* 376, 524-7.
3. Baouz, S. et al. (2001) *J. Biol. Chem.* 276, 1742-1749.
4. Mattingly, R.R. (1999) *J Biol Chem* 274, 37379-84.
5. Kiyono, M. et al. (2000) *J. Biol. Chem.* 275, 29788-29793.

### 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

**M:** Mouse

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