Data Sheet (Cat.No.TMAC-03539)

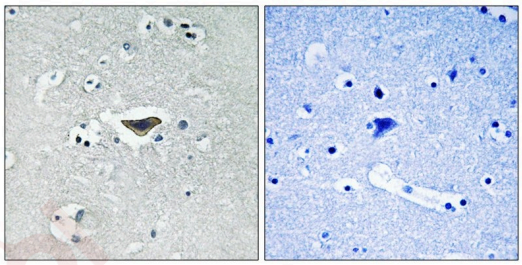
Anti-Phospho-Ras-GRF1 (Ser916) Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse
Conjugation:	Unconjugated
Molecular Weight:	Actual: 145 kDa.
Purification:	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.

Applications

Verified Activity:	1. Immunohistochemical analysis of paraffin-embedded human brain tissue using Ras-GRF1 (Phospho-Ser916) antibody TMAC-03539 (left) or the same antibody preincubated with blocking peptide (right).



Application:	IHC
Recommended	IHC: 1:50-100

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Peptide sequence around phosphorylation site of Serine 916(R-M-S(p)-L-A) derived from Mouse Ras-GRF1
Antigen Species:	Mouse
Uniprot ID:	P27671
Synonyms:	Ras-GRF1 (p-S916);p-Ras-GRF1 (Ser916);Ras-GRF1 (p-Ser916);p-Ras-GRF1 (S916)

Research 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 . Binding to calmodulin and phosphorylation stimulate Ras-GRF1 activity. Multiple PKA phosphorylation sites on Ras-GRF have been identified. Phosphorylation on the two major sites, Ser54 and Ser822, inhibits Ras-GRF activity.

Carbachol (a muscarinic agonist)-induced phosphorylation on Ser916 is essential but not sufficient for maximal Ras-GRF activity.