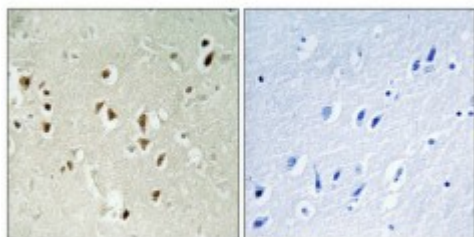


Anti-GRF-1 antibody



Description	Rabbit polyclonal to GRF-1.
Model	STJ93422
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IHC
Immunogen	Synthesized peptide derived from human GRF-1 around the non-phosphorylation site of Y1105.
Immunogen Region	1040-1120 aa
Gene ID	2909
Gene Symbol	ARHGAP35
Dilution range	IHC 1:100-1:300ELISA 1:5000
Specificity	GRF-1 Polyclonal Antibody detects endogenous levels of GRF-1 protein.
Tissue Specificity	Detected in neutrophils (at protein level).
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Rho GTPase-activating protein 35 Glucocorticoid receptor DNA-binding factor 1 Glucocorticoid receptor repression factor 1 GRF-1 Rho GAP p190A p190-A
Molecular Weight	190 kDa

Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:4591OMIM:605277
Alternative Names	Rho GTPase-activating protein 35 Glucocorticoid receptor DNA-binding factor 1 Glucocorticoid receptor repression factor 1 GRF-1 Rho GAP p190A p190-A
Function	Rho GTPase-activating protein (GAP), binds several acidic phospholipids which inhibits the Rho GAP activity to promote the Rac GAP activity . This binding is inhibited by phosphorylation by PRKCA . Involved in cell differentiation as well as cell adhesion and migration, plays an important role in retinal tissue morphogenesis, neural tube fusion, midline fusion of the cerebral hemispheres and mammary gland branching morphogenesis . Transduces signals from p21-ras to the nucleus, acting via the ras GTPase-activating protein (GAP) . Transduces SRC-dependent signal from cell-surface adhesion molecules, such as laminin, to promote neurite outgrowth. Regulates axon outgrowth, guidance and fasciculation . Modulates Rho GTPase-dependent F-actin polymerization, organization and assembly, is involved in polarized cell migration and in the positive regulation of ciliogenesis and cilia elongation . During mammary gland development, is required in both the epithelial and stromal compartments for ductal outgrowth . Represses transcription of the glucocorticoid receptor by binding to the cis-acting regulatory sequence 5'-GAGAAAAGAACTGGAGAACTC-3'; this function is however unclear and would need additional experimental evidences .
Sequence and Domain Family	N-terminal part (1-266) has GTPase activity. Required for proper cellular localization.
Cellular Localization	Cytoplasm Cytoplasm, cytoskeleton, cilium basal body Cell membrane Nucleus. In response to integrins and SDC4 and upon phosphorylation by PKC, relocates from the cytoplasm to regions of plasma membrane ruffling where it colocalizes with polymerized actin.
Post-translational Modifications	Phosphorylation of Tyr-1105 by PTK6 promotes the association with RASA1, inactivating RHOA while activating RAS. Phosphorylation at Tyr-308 by PDGFRA inhibits binding to GTF2I . Phosphorylated by PRKCA at Ser-1221 and Thr-1226, induces relocation from the cytoplasm to regions of plasma membrane ruffling and prevents the binding and substrate specificity regulation by phospholipids . In brain, phosphorylated by FYN and SRC . During focal adhesion formation, phosphorylated by MAPK1 and MAPK3 at the C-terminal region, probably at Ser-1451, Ser-1476, Thr-1480 and Ser-1483. Phosphorylation by MAPK1 and MAPK3 inhibits GAP function and localizes ARGHAP35 away from newly forming focal adhesions and stress fibers in cells spreading on fibronectin . Phosphorylation at Ser-1476 and Thr-1480 by GSK3B requires priming by MAPK and inhibits RhoGAP activity and modulates polarized cell migration .

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