ARG55903
anti-p90 RSK antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes p90 RSK
Tested Reactivity	Hu, Ms, Mk
Tested Application	IP, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	p90 RSK
Species	Human
Immunogen	Purified recombinant Human p90 RSK protein fragments expressed in E.coli.
Conjugation	Un-conjugated
Alternate Names	p90-RSK 1; Ribosomal S6 kinase 1; MAPKAPK-1a; RSK; p90RSK1; MAPKAPK1A; HU-1; p90S6K; MAPK-activated protein kinase 1a; S6K-alpha-1; MAPKAP kinase 1a; p90Rsk; RSK-1; EC 2.7.11.1; Ribosomal protein S6 kinase alpha-1; RSK1; MAP kinase-activated protein kinase 1a; 90 kDa ribosomal protein S6 kinase 1

Application Instructions

Application table

Application	Dilution
IP	Assay-dependent
WB	1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

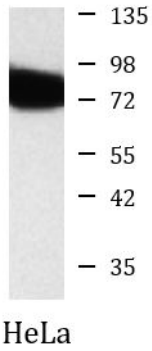
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.4), 0.03% Proclin-300 and 50% Glycerol
Preservative	0.03% Proclin-300
Stabilizer	50% Glycerol
Concentration	3 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

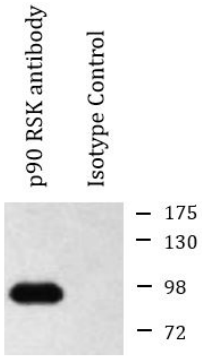
Database links	GeneID: 20111 Mouse GeneID: 6195 Human Swiss-port # P18653 Mouse Swiss-port # Q15418 Human
Gene Symbol	RPS6KA1
Gene Full Name	ribosomal protein S6 kinase, 90kDa, polypeptide 1
Background	This gene encodes a member of the RSK (ribosomal S6 kinase) family of serine/threonine kinases. This kinase contains 2 nonidentical kinase catalytic domains and phosphorylates various substrates, including members of the mitogen-activated kinase (MAPK) signalling pathway. The activity of this protein has been implicated in controlling cell growth and differentiation. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]
Function	Serine/threonine-protein kinase that acts downstream of ERK (MAPK1/ERK2 and MAPK3/ERK1) signaling and mediates mitogenic and stress-induced activation of the transcription factors CREB1, ETV1/ER81 and NR4A1/NUR77, regulates translation through RPS6 and EIF4B phosphorylation, and mediates cellular proliferation, survival, and differentiation by modulating mTOR signaling and repressing pro-apoptotic function of BAD and DAPK1. In fibroblast, is required for EGF-stimulated phosphorylation of CREB1, which results in the subsequent transcriptional activation of several immediate-early genes. In response to mitogenic stimulation (EGF and PMA), phosphorylates and activates NR4A1/NUR77 and ETV1/ER81 transcription factors and the cofactor CREBBP. Upon insulin-derived signal, acts indirectly on the transcription regulation of several genes by phosphorylating GSK3B at 'Ser-9' and inhibiting its activity. Phosphorylates RPS6 in response to serum or EGF via an mTOR-independent mechanism and promotes translation initiation by facilitating assembly of the pre-initiation complex. In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap-dependent translation. Is involved in the mTOR nutrient-sensing pathway by directly phosphorylating TSC2 at 'Ser-1798', which potently inhibits TSC2 ability to suppress mTOR signaling, and mediates phosphorylation of RPTOR, which regulates mTORC1 activity and may promote rapamycin-sensitive signaling independently of the PI3K/AKT pathway. Mediates cell survival by phosphorylating the pro-apoptotic proteins BAD and DAPK1 and suppressing their pro-apoptotic function. Promotes the survival of hepatic stellate cells by phosphorylating CEBPB in response to the hepatotoxin carbon tetrachloride (CCl4). Mediates induction of hepatocyte prolifration by TGFA through phosphorylation of CEBPB (By similarity). Is involved in cell cycle regulation by phosphorylating the CDK inhibitor CDKN1B, which promotes CDKN1B association with 14-3-3 proteins and prevents its translocation to the nucleus and inhibition of G1 progression. [UniProt]
Calculated Mw	83 kDa
PTM	Activated by phosphorylation at Ser-221 by PDPK1. Autophosphorylated on Ser-380, as part of the activation process. May be phosphorylated at Thr-359 and Ser-363 by MAPK1/ERK2 and MAPK3/ERK1. N-terminal myristoylation results in an activated kinase in the absence of added growth factors.
Cellular Localization	Nucleus; Cytoplasm

Images



ARG55903 anti-p90 RSK antibody WB image

Western blot: HeLa cell lysate stained with ARG55903 anti-p90 RSK antibody at 1:1000 dilution.



ARG55903 anti-p90 RSK antibody IP image

Immunoprecipitation: HeLa cell lysates were immunoprecipitated and stained with ARG55903 anti-p90 RSK antibody.