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Anti-p90RSK Antibody

Mouse Anti Human Monoclonal Antibody
Catalog # AP53425

Product Information

Application	WB, IP
Primary Accession	Q15418
Other Accession	NM_002953
Reactivity	Human, Mouse, Monkey
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Immunogen	Purified recombinant human p90RSK protein fragments expressed in E.coli.
Purification	Affinity purified
Calculated MW	82723

Additional Information

Gene ID	6195
Other Names	90 kDa ribosomal protein S6 kinase 1;dJ590P13.1 (ribosomal protein S6 kinase, 90kD, polypeptide 1;dJ590P13.1;EC 2.7.11.1;HU 1;HU1;KS6A1_HUMAN;MAP kinase activated protein kinase 1a;MAP kinase-activated protein kinase 1a;MAPK-activated protein kinase 1a;MAPKAP kinase 1a;MAPKAPK-1a;MAPKAPK1A;MGC79981;Mitogen-activated protein kinase-activated protein kinase 1A;OTTHUMP00000004113;p90 RSK1;p90-RSK 1;p90rsk;p90RSK1;p90S6K;pp90RSK1;Ribosomal protein S6 kinase 90kD 1;Ribosomal protein S6 kinase 90kD polypeptide 1;Ribosomal protein S6 kinase 90kDa polypeptide 1;Ribosomal protein S6 kinase alpha 1;Ribosomal protein S6 kinase alpha-1;Ribosomal protein S6 kinase polypeptide 1;Ribosomal S6 kinase 1;RPS6K1 alpha;rps6ka;Rps6ka1;RSK 1;RSK 1 p90;RSK;RSK-1;RSK1;S6K alpha 1;S6K-alpha-1.
Dilution	WB~~1:1000 IP~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	RPS6KA1
Synonyms	MAPKAPK1A, RSK1

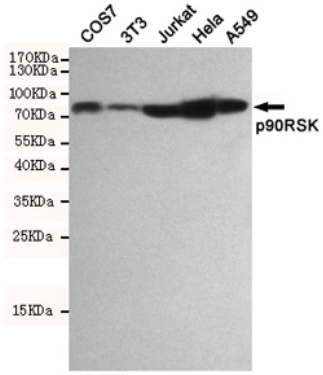
Function	Serine/threonine-protein kinase that acts downstream of ERK (MAPK1/ERK2 and MAPK3/ERK1) signaling and mediates mitogenic and stress-induced activation of the transcription factors CREB1, ETV1/ER81 and NR4A1/NUR77, regulates translation through RPS6 and EIF4B phosphorylation, and mediates cellular proliferation, survival, and differentiation by modulating mTOR signaling and repressing pro- apoptotic function of BAD and DAPK1 (PubMed:10679322, PubMed:12213813, PubMed:15117958, PubMed:16223362, PubMed:17360704, PubMed:18722121, PubMed:26158630, PubMed:35772404, PubMed:9430688). In fibroblast, is required for EGF-stimulated phosphorylation of CREB1, which results in the subsequent transcriptional activation of several immediate-early genes (PubMed:18508509, PubMed:18813292). In response to mitogenic stimulation (EGF and PMA), phosphorylates and activates NR4A1/NUR77 and ETV1/ER81 transcription factors and the cofactor CREBBP (PubMed:12213813, PubMed:16223362). Upon insulin-derived signal, acts indirectly on the transcription regulation of several genes by phosphorylating GSK3B at 'Ser-9' and inhibiting its activity (PubMed:18508509, PubMed:18813292). 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 (PubMed:17360704). In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap- dependent translation (PubMed:16763566). 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 (PubMed:15342917). Also involved in feedback regulation of mTORC1 and mTORC2 by phosphorylating DEPTOR (PubMed:22017876). Mediates cell survival by phosphorylating the pro- apoptotic proteins BAD and DAPK1 and suppressing their pro-apoptotic function (PubMed:10679322, PubMed:16213824). Promotes the survival of hepatic stellate cells by phosphorylating CEBPB in response to the hepatotoxin carbon tetrachloride (CCl4) (PubMed:11684016). Mediates induction of hepatocyte proliferation by TGFA through phosphorylation of CEBPB (PubMed:18508509, PubMed:18813292). 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 (PubMed:18508509, PubMed:18813292). Phosphorylates EPHA2 at 'Ser-897', the RPS6KA-EPHA2 signaling pathway controls cell migration (PubMed:26158630). In response to mTORC1 activation, phosphorylates EIF4B at 'Ser-406' and 'Ser-422' which stimulates bicarbonate cotransporter SLC4A7 mRNA translation, increasing SLC4A7 protein abundance and function (PubMed:35772404).
Cellular Location	Nucleus. Cytoplasm.

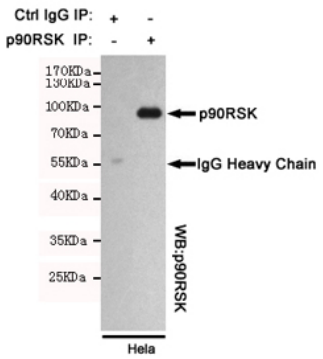
Background

Serine/threonine kinase that may play a role in mediating the growth-factor and stress induced activation of the transcription factor CREB.

Images

Western blot detection of p90RSK in COS7,3T3,Jurkat,Hela and A549 cell lysates using p90RSK mouse mAb(dilution 1:1000).Predicted band size:90KDa.Observed band size:90KDa.





Immunoprecipitation analysis of Hela cell lysates using p90RSK mouse mAb.

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