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Anti-RSK1 p90 Antibody

Catalog # ABO11360

Product Information

Application	WB
Primary Accession	Q15418
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Ribosomal protein S6 kinase alpha-1(RPS6KA1) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6195
Other Names	Ribosomal protein S6 kinase alpha-1, S6K-alpha-1, 2.7.11.1, 90 kDa ribosomal protein S6 kinase 1, p90-RSK 1, p90RSK1, p90S6K, MAP kinase-activated protein kinase 1a, MAPK-activated protein kinase 1a, MAPKAP kinase 1a, MAPKAPK-1a, Ribosomal S6 kinase 1, RSK-1, RPS6KA1, MAPKAPK1A, RSK1
Calculated MW	82723
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Nucleus. Cytoplasm.
Source	Eukaryota
Protein Name	Ribosomal protein S6 kinase alpha-1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human RSK1 p90(721-735aa ILAQRRVRKLPSTTL), identical to the related rat and mouse sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated

	freezing and thawing.
Sequence Similarities	Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. S6 kinase subfamily.

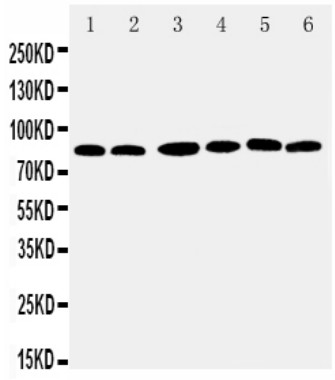
Protein Information

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

RPS6KA1(Ribosomal Protein S6 Kinase, 90-KD, 1), also called RSK1, is an enzyme that in humans is encoded by the RPS6KA1 gene. The RSK(ribosomal S6 kinase) family comprises growth factor-regulated serine/threonine kinases, known also as p90(rsk). Homologs of RSK exist in several species. By analysis of somatic cell hybrids, Moller et al.(1994) mapped the RPS6KA1 gene to chromosome 3.Bonni et al.(1999) characterized the mechanism by which the RAS-MAPK signaling pathway mediates growth factor-dependent cell survival. Inoue et al.(2007) demonstrated that p90rsk, the kinase immediately downstream from Mos-MAPK, directly targets Erp1 for CSF arrest in Xenopus oocytes.

Images



Anti-RSK1 p90 antibody, ABO11360, Western blottingLane 1: MCF-7 Cell LysateLane 2: HELA Cell LysateLane 3: K562 Cell LysateLane 4: JURKAT Cell LysateLane 5: SW620 Cell LysateLane 6: RAJI Cell Lysate



Anti-RSK1 p90 antibody, ABO11360, All Western blottingAll lanes: Anti-RPS6KA1 (ABO11360) at 0.5ug/mlLane 1: A431 Whole Cell Lysate at 40ugLane 2: MCF-7 Whole Cell Lysate at 40ug Lane 3: HELA Whole Cell Lysate at 40ugPredicted bind size: 83KDObserved bind size: 83KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.