Datasheet for ABIN7180062

anti-RPS6KA1 antibody (Thr573)

3 Images

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Overview

Quantity:	100 µL
Target:	RPS6KA1
Binding Specificity:	Thr573
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This RPS6KA1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Synthesized non-phosphopeptide derived from Human p90 RSK around the phosphorylation site of threonine 573 (L-M-T(p)-P-C).
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Purification:	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Target Details

Target:	RPS6KA1
Alternative Name:	RPS6KA1 (RPS6KA1 Products)

Target Details

Background:	Background: 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 preinitiation 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). 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. Moller D.E., Am. J. Physiol. 266:C351-C359(1994). Gregory S.G., Nature 441:315-321(2006). The MGC Project Team, Genome Res. 14:2121-2127(2004). Aliases: 90 kDa ribosomal protein S6 kinase 1 antibody, dJ590P13.1 (ribosomal protein S6 kinase, 90kD, polypeptide 1 antibody, dJ590P13.1 antibody, EC 2.7.11.1 antibody, HU 1 antibody, HU1 antibody, KS6A1_HUMAN antibody, MAP kinase activated protein kinase 1a antibody, MAP kinase-activated protein kinase 1a antibody, MAPK-activated protein kinase 1a antibody, MAPKAP kinase 1a antibody, MAPKAPK-1a antibody, MAPKAPK1A antibody, MGC79981 antibody, Mitogen-activated protein kinase-activated protein kinase 1A antibody, OTTHUMP00000004113 antibody, p90 RSK1 antibody, p90-RSK 1 antibody, p90rsk antibody, p90RSK1 antibody, p90S6K antibody, pp90RSK1 antibody, Ribosomal protein S6 kinase 90kD 1 antibody, Ribosomal protein S6 kinase 90kD polypeptide 1 antibody, Ribosomal protein S6

Target Details

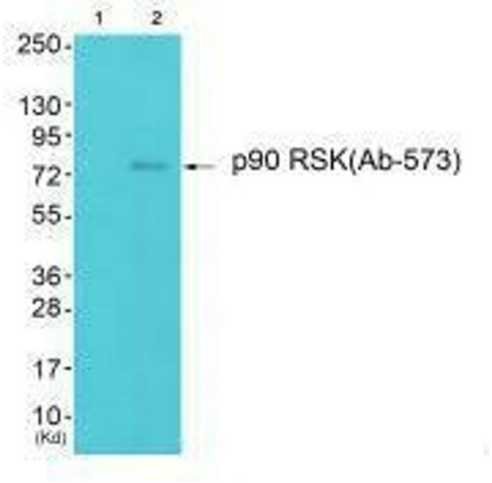
	kinase 90 kDa polypeptide 1 antibody, Ribosomal protein S6 kinase alpha 1 antibody, Ribosomal protein S6 kinase alpha-1 antibody, Ribosomal protein S6 kinase polypeptide 1 antibody, Ribosomal S6 kinase 1 antibody, RPS6K1 alpha antibody, rps6ka antibody, Rps6ka1 antibody, RSK 1 antibody, RSK 1 p90 antibody, RSK antibody, RSK-1 antibody, RSK1 antibody, RSK1p90 antibody, S6K alpha 1 antibody, S6K-alpha-1 antibody
UniProt:	Q15418
Pathways:	MAPK Signaling, Neurotrophin Signaling Pathway, Activation of Innate immune Response, Toll-Like Receptors Cascades

Application Details

Application Notes:	WB:1:500-1:3000, IHC:1:50-1:100,
Restrictions:	For Research Use only

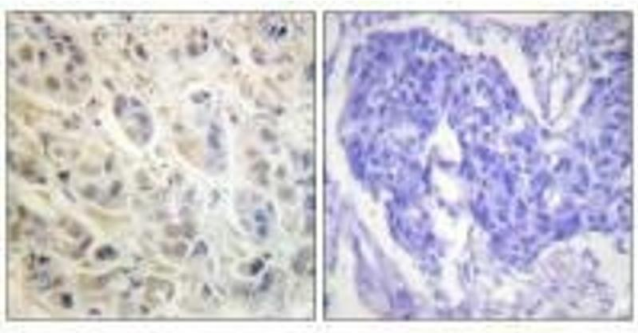
Handling

Format:	Liquid
Buffer:	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.



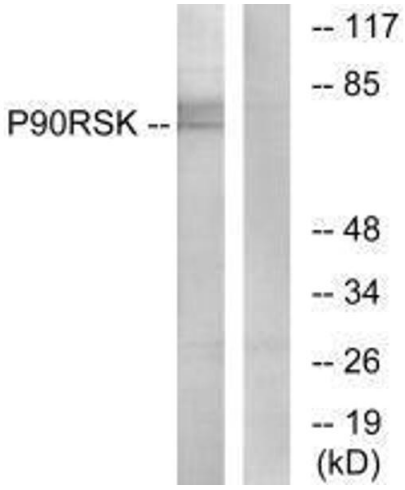
Western Blotting

Image 1. Western blot analysis of extracts from 293 cells (Lane 2), using p90 RSK (Ab-573) antiobdy. The lane on the left is treated with synthesized peptide.



Immunohistochemistry

Image 2. Immunohistochemistry analysis of paraffin-embedded human colon carcinoma tissue using p90 RSK (Ab-573) antibody.



Western Blotting

Image 3. Western blot analysis of extracts from 3T3 cells, treated with PMA (125 ng/mL, 30 mins), using p90 RSK (Ab-573) antibody.

