Product Datasheet

p90 RSK Antibody

Catalog No: #33139

Package Size: #33139-1 50ul #33139-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

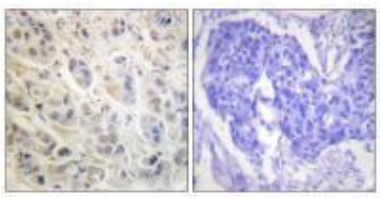
Product Name	p90 RSK Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB IHC
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous levels of total p90 RSK protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized non-phosphopeptide derived from human p90 RSK around the phosphorylation site of threonine 573 (L-M-T(p)-P-C).
Conjugates	Unconjugated
Target Name	p90 RSK
Other Names	90 kDa ribosomal protein S6 kinase 1; EC 2.7.11.1; KS6A1; MAPKAP-K1a; RPS6KA1
Accession No.	Swiss-Prot: Q15418NCBI Gene ID: 6195
SDS-PAGE MW	80kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

Application Details

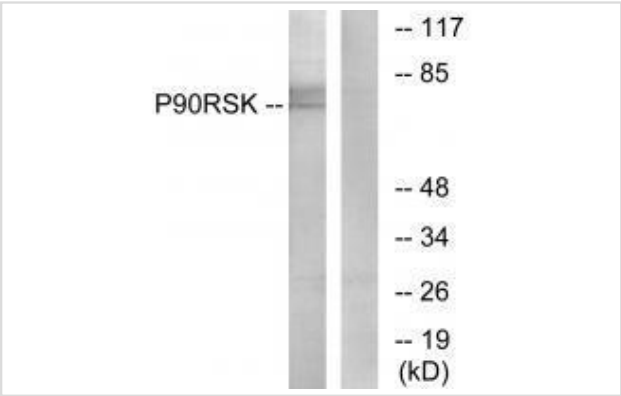
Western blotting: 1:500~1:3000

Immunohistochemistry: 1:50~1:100

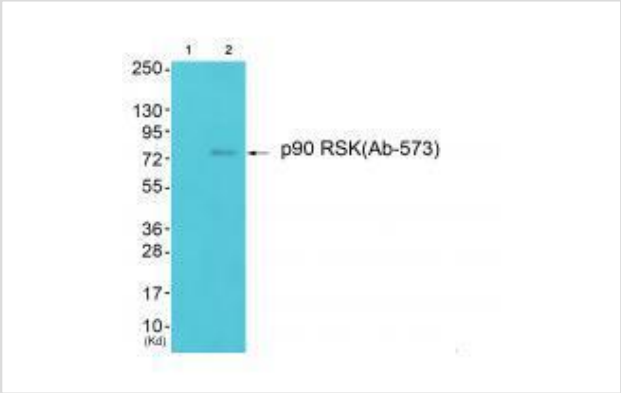
Images



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma tissue using p90 RSK (Ab-573) antibody #33139.



Western blot analysis of extracts from 3T3 cells, treated with PMA (125ng/ml, 30mins), using p90 RSK (Ab-573) antibody #33139.



Western blot analysis of extracts from 293 cells (Lane 2), using p90 RSK (Ab-573) antiobdy #33139. The lane on the left is treated with synthesized peptide.

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).

Published Papers

el at., Response of MAPK pathway to iron oxide nanoparticles in vitro treatment promotes osteogenic differentiation of hBMSCs.In Biomaterials.On 2016 Apr by Wang Q, Chen B et al..PMID:26874888, , (2016)

PMID:26874888

Note: This product is for in vitro research use only and is not intended for use in humans or animals.