Data Sheet (Cat.No.TMAH-00959)

Anti-Phospho-RPS6KA1 (Ser380) Antibody (2X769)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2X769
Purification:	Affinity-chromatography

Applications

Verified Activity:	1. Western Blot -Positive WB detected in A549 whole cell lysate, Hela whole cell lysate, HepG2 whole cell lysate -All lanes Phospho-RPS6KA1 antibody at 1.75μg/ml -Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution -Predicted band size: 90 KDa -Observed band size: 90 KDa 2. Immunoprecipitating Phospho-RPS6KA1 in Hela whole cell lysate -Lane 1: Rabbit control IgG(1μg)instead of TMAH-00959 in Hela whole cell lysate. For western blotting,a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000) -Lane 2: TMAH-00959(3μg)+ Hela whole cell lysate(1mg) -Lane 3: Hela whole cell lysate (20μg)
Application:	ELISA, WB, IP
Recommended	WB:1:500-1:5000; IP:1:200-1:1000.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human Phospho-RPS6KA1 (S380)
Antigen Species:	Human
Gene ID:	6195
Uniprot ID:	Q15418
Synonyms:	MAP kinase activated protein kinase 1a;KS6A1_HUMAN;pp90RSK1;p90 RSK1;HU 1;MAPKAPK1A;MGC79981;rps6ka;RSK 1;ribosomal protein S6 kinase;S6K alpha 1;90kD;MAPKAPK-1a;Ribosomal protein S6 kinase polypeptide 1;RPS6K1 alpha;Ribosomal protein S6 kinase 90kD polypeptide 1;Ribosomal S6 kinase 1;S6K-alpha-1;OTTHUMP00000004113;Mitogen-activated protein kinase-activated protein kinase 1A;RSK;EC 2.7.11.1;p90S6K;Ribosomal protein S6 kinase alpha 1;RSK 1 p90;p90RSK1;dJ590P13.1;RPS6KA1 (p-S380);MAPKAP kinase 1a;RSK1;p-RPS6KA1 (Ser380);90 kDa ribosomal protein S6 kinase 1;RSK1p90;p-RPS6KA1 (S380);Phospho-RPS6KA1 (S380);polypeptide 1;RPS6KA1 (p-Ser380);HU1

Biology Area: Signal Transduction

Research 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 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. 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. Phosphorylates EPHA2 at 'Ser-897', the RPS6KA-EPHA2 signaling pathway controls cell migration.

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