

Phospho-RSK1 p90 (T573) Antibody
Rabbit mAb
Catalog # AP93272**Specification****Phospho-RSK1 p90 (T573) Antibody - Product Information**

Application	WB, ICC
Primary Accession	Q15418
Clonality	Monoclonal
Other Names	
HU1; MAPKAPK1A; p90rsk; p90RSK1; p90S6K; pp90RSK1; Ribosomal protein S6 kinase alpha 1; Ribosomal S6 kinase 1; RPS6K1; rps6ka; Rps6ka1; RSK; RSK1; S6K alpha 1;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	82723 Da

Phospho-RSK1 p90 (T573) Antibody - Additional Information

Dilution	WB~~1:1000 ICC~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Phospho-RSK1 p90 (T573)
Description	Serine/threonine kinase that may play a role in mediating the growth-factor and stress induced activation of the transcription factor CREB.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Phospho-RSK1 p90 (T573) Antibody - 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:15117958).

[16223362](http://www.uniprot.org/citations/16223362), PubMed: [17360704](http://www.uniprot.org/citations/17360704), PubMed: [18722121](http://www.uniprot.org/citations/18722121), PubMed: [26158630](http://www.uniprot.org/citations/26158630), PubMed: [35772404](http://www.uniprot.org/citations/35772404), PubMed: [9430688](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/18508509), PubMed: [18813292](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/12213813), PubMed: [16223362](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/18508509), PubMed: [18813292](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17360704)). In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap- dependent translation (PubMed: [16763566](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/15342917)). Also involved in feedback regulation of mTORC1 and mTORC2 by phosphorylating DEPTOR (PubMed: [22017876](http://www.uniprot.org/citations/22017876)). Mediates cell survival by phosphorylating the pro- apoptotic proteins BAD and DAPK1 and suppressing their pro-apoptotic function (PubMed: [10679322](http://www.uniprot.org/citations/10679322), PubMed: [16213824](http://www.uniprot.org/citations/16213824)). Promotes the survival of hepatic stellate cells by phosphorylating CEBPB in response to the hepatotoxin carbon tetrachloride (CCl4) (PubMed: [11684016](http://www.uniprot.org/citations/11684016)). Mediates induction of hepatocyte proliferation by TGFA through phosphorylation of CEBPB (PubMed: [18508509](http://www.uniprot.org/citations/18508509), PubMed: [18813292](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/18508509), PubMed: [18813292](http://www.uniprot.org/citations/18813292)). Phosphorylates EPHA2 at 'Ser-897', the RPS6KA-EPHA2 signaling pathway controls cell migration (PubMed: [26158630](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/35772404)).

Cellular Location

Nucleus. Cytoplasm.

Phospho-RSK1 p90 (T573) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho-RSK1 p90 (T573) Antibody - Images