

Anti-RSK1 (pT359/S363) Antibody
Rabbit polyclonal antibody to RSK1 (pT359/S363)
Catalog # AP61065

Specification

Anti-RSK1 (pT359/S363) Antibody - Product Information

Application	WB
Primary Accession	O15418
Other Accession	P18653
Reactivity	Human, Mouse, Rat, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	82723

Anti-RSK1 (pT359/S363) Antibody - Additional Information

Gene ID 6195

Other Names

MAPKAPK1A; RSK1; Ribosomal protein S6 kinase alpha-1; S6K-alpha-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

Target/Specificity

Recognizes endogenous levels of RSK1 (pT359/S363) protein.

Dilution

WB~~WB (1/500 - 1/1000), IH (1/50 - 1/100)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-RSK1 (pT359/S363) 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:<a

[10679322](http://www.uniprot.org/citations/10679322), PubMed: [12213813](http://www.uniprot.org/citations/12213813), PubMed: [15117958](http://www.uniprot.org/citations/15117958), PubMed: [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

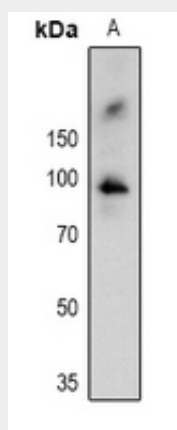
Nucleus. Cytoplasm.

Anti-RSK1 (pT359/S363) Antibody - Protocols

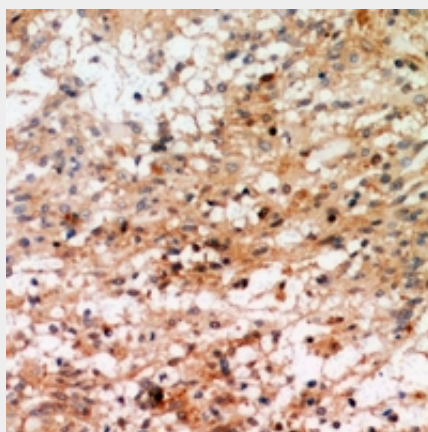
Provided below are standard protocols that you may find useful for product applications.

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

Anti-RSK1 (pT359/S363) Antibody - Images



Western blot analysis of RSK1 (pT359/S363) expression in PC3 (A) whole cell lysates.



Immunohistochemical analysis of RSK1 (pT359/S363) staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-RSK1 (pT359/S363) Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human

RSK1. The exact sequence is proprietary.