

**RPS6KA1 / RSK1 Antibody (N-Terminus)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS11713**

## Specification

## RPS6KA1 / RSK1 Antibody (N-Terminus) - Product Information

Application	IHC
Primary Accession	<a href="#">Q15418</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	83kDa KDa

### RPS6KA1 / RSK1 Antibody (N-Terminus) - Additional Information

**Gene ID** 6195

## Other Names

Ribosomal protein S6 kinase alpha-1, S6K-alpha-1, 2.7.11.1, 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, RPS6KA1, MAPKAPK1A, RSK1

## Target/Specificity

16 amino acid peptide from near the amino-terminus of human RPS6K1

## Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

## Precautions

RPS6KA1 / RSK1 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

### RPS6KA1 / RSK1 Antibody (N-Terminus) - 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 href="http://www.uniprot.org/citations/10679322" target="\_blank">10679322</a>, PubMed:<a href="http://www.uniprot.org/citations/16223362" target="\_blank">16223362</a>, PubMed:<a href="http://www.uniprot.org/citations/15117958" target="\_blank">15117958</a>, PubMed:<a

<http://www.uniprot.org/citations/12213813> target="\_blank">12213813</a>, PubMed:<a href="http://www.uniprot.org/citations/9430688" target="\_blank">9430688</a>, PubMed:<a href="http://www.uniprot.org/citations/17360704" target="\_blank">17360704</a>, PubMed:<a href="http://www.uniprot.org/citations/26158630" target="\_blank">26158630</a>, PubMed:<a href="http://www.uniprot.org/citations/18722121" target="\_blank">18722121</a>, PubMed:<a href="http://www.uniprot.org/citations/35772404" target="\_blank">35772404</a>). In fibroblast, is required for EGF-stimulated phosphorylation of CREB1, which results in the subsequent transcriptional activation of several immediate-early genes (PubMed:<a href="http://www.uniprot.org/citations/18508509" target="\_blank">18508509</a>, PubMed:<a href="http://www.uniprot.org/citations/18813292" target="\_blank">18813292</a>). In response to mitogenic stimulation (EGF and PMA), phosphorylates and activates NR4A1/NUR77 and ETV1/ER81 transcription factors and the cofactor CREBBP (PubMed:<a href="http://www.uniprot.org/citations/12213813" target="\_blank">12213813</a>, PubMed:<a href="http://www.uniprot.org/citations/16223362" target="\_blank">16223362</a>). Upon insulin-derived signal, acts indirectly on the transcription regulation of several genes by phosphorylating GSK3B at 'Ser-9' and inhibiting its activity (PubMed:<a href="http://www.uniprot.org/citations/18508509" target="\_blank">18508509</a>, PubMed:<a href="http://www.uniprot.org/citations/18813292" target="\_blank">18813292</a>). 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:<a href="http://www.uniprot.org/citations/17360704" target="\_blank">17360704</a>). In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap- dependent translation (PubMed:<a href="http://www.uniprot.org/citations/16763566" target="\_blank">16763566</a>). 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:<a href="http://www.uniprot.org/citations/15342917" target="\_blank">15342917</a>). Also involved in feedback regulation of mTORC1 and mTORC2 by phosphorylating DEPTOR (PubMed:<a href="http://www.uniprot.org/citations/22017876" target="\_blank">22017876</a>). Mediates cell survival by phosphorylating the pro- apoptotic proteins BAD and DAPK1 and suppressing their pro-apoptotic function (PubMed:<a href="http://www.uniprot.org/citations/10679322" target="\_blank">10679322</a>, PubMed:<a href="http://www.uniprot.org/citations/16213824" target="\_blank">16213824</a>). Promotes the survival of hepatic stellate cells by phosphorylating CEBPB in response to the hepatotoxin carbon tetrachloride (CCl4) (PubMed:<a href="http://www.uniprot.org/citations/11684016" target="\_blank">11684016</a>). Mediates induction of hepatocyte proliferation by TGFA through phosphorylation of CEBPB (PubMed:<a href="http://www.uniprot.org/citations/18508509" target="\_blank">18508509</a>, PubMed:<a href="http://www.uniprot.org/citations/18813292" target="\_blank">18813292</a>). 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:<a href="http://www.uniprot.org/citations/18508509" target="\_blank">18508509</a>, PubMed:<a href="http://www.uniprot.org/citations/18813292" target="\_blank">18813292</a>). Phosphorylates EPHA2 at 'Ser-897', the RPS6KA-EPHA2 signaling pathway controls cell migration (PubMed:<a href="http://www.uniprot.org/citations/26158630" target="\_blank">26158630</a>). 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:<a href="http://www.uniprot.org/citations/35772404" target="\_blank">35772404</a>).

#### **Cellular Location**

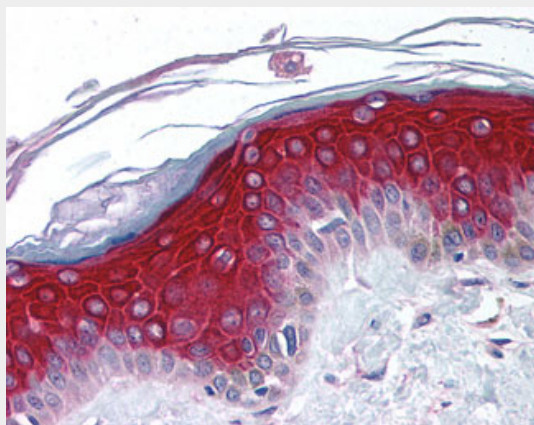
Nucleus. Cytoplasm.

#### **RPS6KA1 / RSK1 Antibody (N-Terminus) - 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](#)

#### **RPS6KA1 / RSK1 Antibody (N-Terminus) - Images**



Anti-RPS6KA1 / RSK1 antibody IHC of human skin.

#### **RPS6KA1 / RSK1 Antibody (N-Terminus) - Background**

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#### **RPS6KA1 / RSK1 Antibody (N-Terminus) - References**

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Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.  
Deak M.,et al.EMBO J. 17:4426-4441(1998).