

# Anti-Phospho-RSK1 (S380) Antibody [SC05-32]

## ET1610-28



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IF-Tissue, IP
<b>Molecular Wt:</b>	Predicted band size: 83 kDa
<b>Clone number:</b>	SC05-32

**Description:** The family of ribosomal S6 kinases (Rsk), designated Rsk-1, Rsk-2 and Rsk-3, are important signaling intermediates that mediate responses to a broad range of ligand-activated receptor tyrosine kinases. It has been established that Rsk-3 is not activated by MAP kinase in vitro, unlike Rsk-1 and Rsk-2. A unique feature common to the three members of the Rsk family is that each possesses two non-identical complete kinase catalytic domains. The Rsk family amino-terminal kinase domain is phosphorylated on Ser 227 by 3-phosphoinositide-dependent protein kinase-1 (PDK1), which increases the kinase activity of Rsk. In the carboxy-terminal kinase domain, Rsk-1 and Rsk-2 are autophosphorylated on Ser 380 and Ser 386, respectively, which mediates the docking of PDK1 to Rsk in order to promote phosphorylation of substrates, such as histone H3.

**Immunogen:** Synthetic phospho-peptide corresponding to residues surrounding S380 of human RSK1.

**Positive control:** A431 cell lysates, HeLa, A431, 293, HeLa whole cell lysate, HeLa (starved overnight) then treated with TPA (200nM 4h) cell lysate, NIH/3T3 whole cell lysate, NIH/3T3 (starved 24h) then Calyculin A (100nM 15min) cell lysate.

**Subcellular location:** Nucleus, Cytoplasm.

**Database links:** SwissProt: Q15418 Human | P18653 Mouse | Q63531 Rat

**Recommended Dilutions:**

<b>WB</b>	1:1,000-1:5,000
<b>IF-Cell</b>	1:50-1:200
<b>IF-Tissue</b>	1:50-1:200

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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## Images

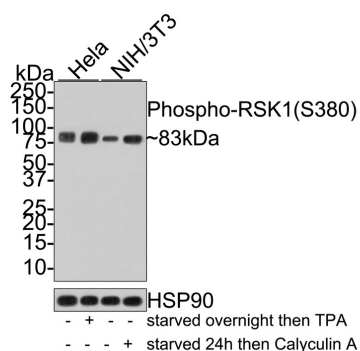
**Fig1:** Western blot analysis of Phospho-RSK1 (S380) on different lysates with Rabbit anti-Phospho-RSK1 (S380) antibody (ET1610-28) at 1/500 dilution.

Lane 1: HeLa whole cell lysate

Lane 2: HeLa (starved overnight) then treated with TPA (200nM 4h) cell lysate

Lane 3: NIH/3T3 whole cell lysate

Lane 4: NIH/3T3 (starved 24h) then Calyculin A (100nM 15min) cell lysate



Lysates/proteins at 10 µg/Lane.

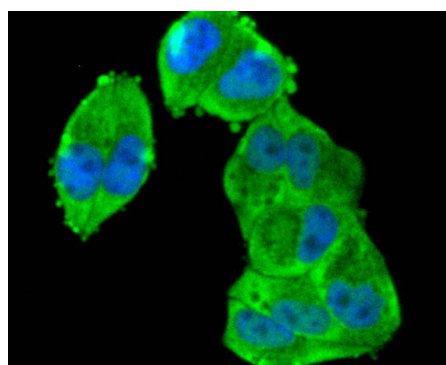
Predicted band size: 83 kDa

Observed band size: 83 kDa

Exposure time: 1 minute;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1610-28) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.



**Fig2:** ICC staining of Phospho-RSK1 (S380) in HeLa cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 10% negative goat serum for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1610-28, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor@488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

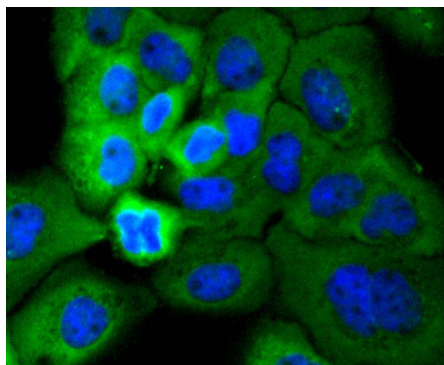
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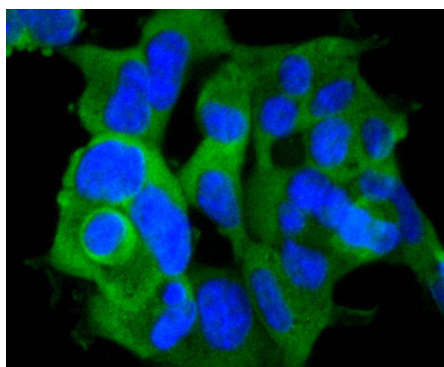
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**Fig3:** ICC staining of Phospho-RSK1 (S380) in A431 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 10% negative goat serum for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1610-28, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).



**Fig4:** ICC staining of Phospho-RSK1 (S380) in 293 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 10% negative goat serum for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1610-28, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Smadja-Lamère N et al. Insulin Activates RSK (p90 Ribosomal S6 Kinase) to Trigger a New Negative Feedback Loop That Regulates Insulin Signaling for Glucose Metabolism. *J Biol Chem* 288:31165-76 (2013).
2. Tangredi MM et al. The C-terminal kinase and ERK-binding domains of *Drosophila* S6KII (RSK) are required for phosphorylation of the protein and modulation of circadian behavior. *J Biol Chem* 287:16748-58 (2012).

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