

## Rabbit anti-Human RPS5 Polyclonal Antibody | anti-RPS5 antibody

Anti-RPS5 Antibody, Rabbit Polyclonal

| CATALOG # | HOST   | REACTIVITY | APPLICATIONS                                                                                     |
|-----------|--------|------------|--------------------------------------------------------------------------------------------------|
| AAA256324 | Rabbit | Human      | Immunoprecipitation, Immunofluorescence, Immunocytochemistry, Immunohistochemistry, Western Blot |

### PRODUCT SYNONYMS

RPS5; Polyclonal Antibody; Anti-RPS5 Antibody; Rabbit Polyclonal; RPS5 Antibody; Rabbit PAb; Antigen Affinity Purified; ribosomal protein S5; Anti-S5 Antibody; anti-RPS5 antibody

### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                                                                                                                                                    |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                                                                                                                                                             |
| Reactivity                                     | Human                                                                                                                                                                                                                                              |
| Clonality                                      | Polyclonal                                                                                                                                                                                                                                         |
| Isotype                                        | Rabbit IgG                                                                                                                                                                                                                                         |
| Specificity                                    | Human RPS5                                                                                                                                                                                                                                         |
| Purity/Purification                            | Protein A & Antigen Affinity                                                                                                                                                                                                                       |
| Form/Format                                    | Liquid; PBS, pH7.0 with 0.03% Proclin300                                                                                                                                                                                                           |
| Applicable Applications for anti-RPS5 antibody | IP (Immunoprecipitation), IF (Immunofluorescence), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                        |
| Immunogen                                      | E Coli-derived Human RPS5 fragment                                                                                                                                                                                                                 |
| Conjugation                                    | Unconjugated                                                                                                                                                                                                                                       |
| Preparation                                    | Produced in rabbits immunized with E Coli-derived Human RPS5 fragment, and purified by antigen affinity chromatography.                                                                                                                            |
| Preparation and Storage                        | This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Avoid repeated freeze-thaw cycles. |

### IMAGES



#### IP (Immunoprecipitation)

RPS5 was immunoprecipitated using: Lane A: 0.5 mg 293T Whole Cell Lysate 4 uL anti-RPS5 rabbit polyclonal antibody and 60 ug of Immunomagnetic beads Protein A/G. Primary antibody: Anti-RPS5 rabbit polyclonal antibody, at 1:100 dilution. Secondary antibody: Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution. Developed using the ECL technique. Performed under reducing conditions. Predicted band size: 23 kDa. Observed band size: 23 kDa.



#### IF (Immunofluorescence)

Immunofluorescence staining of RPS5 in U2OS cells. Cells were fixed with 4% PFA, permeabilized with 0.1% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-Human RPS5 polyclonal antibody (dilution ratio 1:200) at 4 degree C overnight. Then cells were stained with the Alexa Fluor 488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to Cytoplasm.



#### IHC (Immunohistochemistry)

Immunochemical staining of human RPS5 in human pancreas with rabbit polyclonal antibody at 1:200 dilution, formalin-fixed paraffin embedded sections.



#### IHC (Immunohistochemistry)

Immunochemical staining of human RPS5 in human brain with rabbit polyclonal antibody at 1:200 dilution, formalin-fixed paraffin embedded sections.



#### WB (Western Blot)

Anti-RPS5 rabbit polyclonal antibody at 1:500 dilution Lane A: 293T Whole Cell Lysate Lane B: HeLa Whole Cell Lysate Lane C: Jurkat Whole Cell Lysate Lane D: HepG2 Whole Cell Lysate Lysates/proteins at 30 ug per lane. Secondary Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution. Developed using the ECL technique. Performed under reducing conditions. Predicted band size: 23 kDa Observed band size: 23 kDa (We are unsure as to the identity of these extra bands).

## ADDITIONAL INFORMATION

### Related Product Information for anti-RPS5 antibody

Ribosomal protein s5 (RPS5) has been identified as a target of M19 and regulates PI3K/Akt, NF-kappaB, and MAPKs pathways in osteoclastogenesis. Overexpressions of RPS5 synergistically inhibited osteoclastogenesis with M19 while silencing RPS5 compromised M19 inhibitory effects on osteoclastogenesis in vitro. RPS5 serves as a potential candidate target for inhibiting osteoclastogenesis and osteoporosis therapy. rpS5 forms part of the exit (E) site on the 40S ribosomal subunit and is essential for yeast viability. Human rpS5 is 67% identical and 79% similar to *Saccharomyces cerevisiae* rpS5 but lacks a negatively charged (pI approximately 3.27) 21 amino acid long N-terminal extension that is present in fungi. The mutant (rps5) contained a missense mutation of plastid ribosomal protein S5 (RPS5), which caused a dramatically reduced abundance of chloroplast 16S rRNA and seriously impaired 16S rRNA processing to affect ribosome function and plastid translation.

### References

Zhang J, et al. (2016) Plastid ribosomal protein s5 is involved in photosynthesis, plant development, and cold stress tolerance in arabidopsis. *J Exp Bot* 67 (9): 2731-2744. Matragkou C, et al. (2009) On the intracellular trafficking of mouse s5 ribosomal protein from cytoplasm to nucleoli. *J Mol Biol* 392 (5): 1192-1204. Galkin O, et al. (2007) Roles of the negatively charged n-terminal extension of *saccharomyces cerevisiae* ribosomal protein s5 revealed by characterization of a yeast strain containing human ribosomal protein s5. *Rna* 13 (12): 2116-2128. Chen X, et al. (2017) Matrine derivate masm uncovers a novel function for ribosomal protein s5 in osteoclastogenesis and postmenopausal osteoporosis. *Cell Death Dis* 8 (9): e3037.

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/rps5-antibody-immunoprecipitation-immunofluorescence-immunocytochemistry-immunohistochemistry-western-blot-elisa/256324>