

RPS3 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51707-100 □

Specification

RPS3 Antibody - Product info

Application	WB
Primary Accession	P23396
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33 KDa

RPS3 Antibody - Additional info

Gene ID 6188

Other Names
40S ribosomal protein S3, RPS3

Target/Specificity
KLH conjugated synthetic peptide derived from human RPS3

Dilution
WB~~ 1:1000

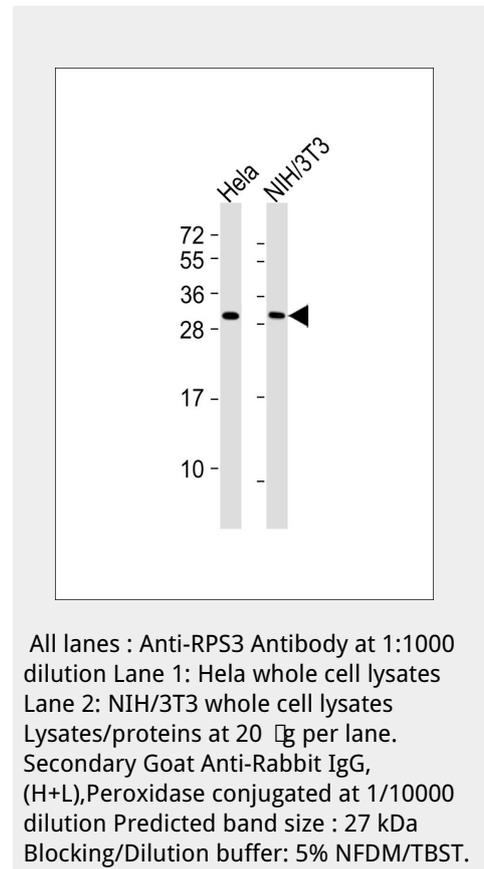
Format
0.01M PBS, pH 7.2, 0.1% Sodium azide, Glycerol 50%

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

RPS3 Antibody - Protein Information

Name RPS3

Function
Involved in translation as a component of the 40S small ribosomal subunit (PubMed:[8706699](http://www.uniprot.org/citations/8706699)). Has endonuclease activity and plays a role in repair of damaged DNA (PubMed:[7775413](http://www.uniprot.org/citations/7775413)). Cleaves phosphodiester bonds of DNAs containing altered bases with broad specificity and cleaves supercoiled DNA more efficiently than relaxed DNA (PubMed:[15707971](http://www.uniprot.org/citations/15707971)). Displays high binding affinity for 7,8-dihydro-8-oxoguanine (8-oxoG), a common DNA lesion caused by reactive oxygen species (ROS) (PubMed:[14706345](http://www.uniprot.org/citations/14706345)). Has also been shown to bind with similar affinity to intact and damaged DNA (PubMed:[18610840](http://www.uniprot.org/citations/18610840)). Stimulates the N-glycosylase activity of the base excision protein OGG1 (PubMed:[15518571](http://www.uniprot.org/citations/15518571))



target="_blank">15518571). Enhances the uracil excision activity of UNG1 (PubMed:18973764). Also stimulates the cleavage of the phosphodiester backbone by APEX1 (PubMed:18973764). When located in the mitochondrion, reduces cellular ROS levels and mitochondrial DNA damage (PubMed:23911537). Has also been shown to negatively regulate DNA repair in cells exposed to hydrogen peroxide (PubMed:17049931). Plays a role in regulating transcription as part of the NF-kappa-B p65-p50 complex where it binds to the RELA/p65 subunit, enhances binding of the complex to DNA and promotes transcription of target genes (PubMed:18045535). Represses its own translation by binding to its cognate mRNA (PubMed:20217897). Binds to and protects TP53/p53 from MDM2-mediated ubiquitination (PubMed:19656744). Involved in spindle formation and chromosome movement during mitosis by regulating microtubule polymerization (PubMed:23131551). Involved in induction of apoptosis through its role in activation of CASP8 (PubMed:14988002). Induces neuronal apoptosis by interacting with the E2F1 transcription factor and acting synergistically with it to up-regulate pro-apoptotic proteins BCL2L11/BIM and HRK/Dp5 (PubMed:20605787). Interacts with TRADD following exposure to UV radiation and induces apoptosis by caspase-dependent JNK activation (PubMed:22510408).

Cellular Location

Cytoplasm. Nucleus. Nucleus, nucleolus Mitochondrion inner membrane; Peripheral membrane protein Cytoplasm, cytoskeleton, spindle Note=In normal cells, located mainly in the cytoplasm with small amounts in the nucleus but translocates to the nucleus in cells undergoing apoptosis (By similarity). Nuclear translocation is induced by DNA damaging agents such as hydrogen peroxide (PubMed:17560175). Accumulates in the mitochondrion in response to increased ROS levels (PubMed:23911537). Localizes to the spindle during mitosis (PubMed:23131551). Localized in cytoplasmic mRNP granules containing untranslated mRNAs (PubMed:17289661) {ECO:0000250|UniProtKB:P62908, ECO:0000269|PubMed:17289661, ECO:0000269|PubMed:17560175, ECO:0000269|PubMed:23131551, ECO:0000269|PubMed:23911537}

RPS3 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](#)

RPS3 Antibody - References

Zhang X.T., et al. *Nucleic Acids Res.* 18:6689-6689(1990).
Pogue-Geile K., et al. *Mol. Cell. Biol.* 11:3842-3849(1991). Yoshihama
M., et al. *Genome Res.* 12:379-390(2002). Ota T., et al. *Nat. Genet.*
36:40-45(2004). Taylor T.D., et al. *Nature* 440:497-500(2006).