

## RPS3 Antibody (monoclonal) (M03)

Mouse monoclonal antibody raised against a partial recombinant RPS3.

Catalog # AT3717a

### Product Information

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|-------------------|---------------------------|
| Application       | WB, E                     |
| Primary Accession | <a href="#">P23396</a>    |
| Other Accession   | <a href="#">NM_001005</a> |
| Reactivity        | Human                     |
| Host              | Mouse                     |
| Clonality         | monoclonal                |
| Isotype           | IgG2a Kappa               |
| Clone Names       | 2A8                       |
| Calculated MW     | 26688                     |

### Additional Information

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|--------------------|--------------------------------------------------------------------------------------------------------------------|
| Gene ID            | 6188                                                                                                               |
| Other Names        | 40S ribosomal protein S3, RPS3                                                                                     |
| Target/Specificity | RPS3 (NP_000996, 144 a.a. ~ 243 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.  |
| Dilution           | WB~~1:500~1000 E~~N/A                                                                                              |
| Format             | Clear, colorless solution in phosphate buffered saline, pH 7.2 .                                                   |
| Storage            | Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.                                           |
| Precautions        | RPS3 Antibody (monoclonal) (M03) is for research use only and not for use in diagnostic or therapeutic procedures. |

### Background

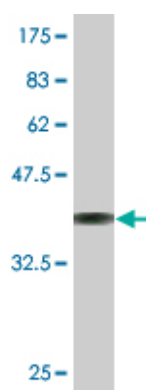
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Ribosomes, the organelles that catalyze protein synthesis, consist of a small 40S subunit and a large 60S subunit. Together these subunits are composed of 4 RNA species and approximately 80 structurally distinct proteins. This gene encodes a ribosomal protein that is a component of the 40S subunit, where it forms part of the domain where translation is initiated. The protein belongs to the S3P family of ribosomal proteins. Studies of the mouse and rat proteins have demonstrated that the protein has an extraribosomal role as an endonuclease involved in the repair of UV-induced DNA damage. The protein appears to be located in both the cytoplasm and nucleus but not in the nucleolus. Higher levels of expression of this gene in colon adenocarcinomas and adenomatous polyps compared to adjacent normal colonic mucosa have been observed. This gene is co-transcribed with the small nucleolar RNA genes U15A and U15B, which are located in its first and fifth introns, respectively. As is typical for genes encoding ribosomal proteins, there are multiple processed pseudogenes of this gene dispersed through the genome.

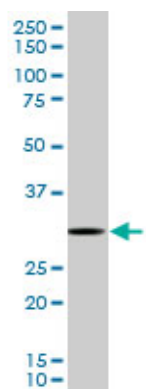
## References

RpS3 translation is repressed by interaction with its own mRNA. Kim HD, et al. J Cell Biochem, 2010 May 15. PMID 20217897. Ribosomal protein S3: A multi-functional protein that interacts with both p53 and MDM2 through its KH domain. Yadavilli S, et al. DNA Repair (Amst), 2009 Oct 2. PMID 19656744. Arginine methylation of ribosomal protein S3 affects ribosome assembly. Shin HS, et al. Biochem Biophys Res Commun, 2009 Jul 24. PMID 19460357. Phosphorylation status of nuclear ribosomal protein S3 is reciprocally regulated by protein kinase C $\delta$  and protein phosphatase 2A. Kim TS, et al. J Biol Chem, 2009 Aug 7. PMID 19458393. [Protein S3 fragments neighboring mRNA during elongation and translation termination on the human ribosome] Kha $\ddot{r}$ ulina IuS, et al. Bioorg Khim, 2008 Nov-Dec. PMID 19088750.

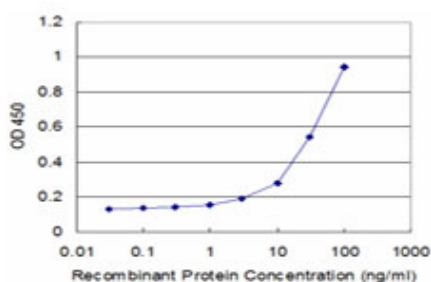
## Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa) .



RPS3 monoclonal antibody (M03), clone 2A8. Western Blot analysis of RPS3 expression in HeLa S3 NE (Cat # AT3717a )



Detection limit for recombinant GST tagged RPS3 is approximately 3ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.