

Ribosomal Protein S3 rabbit pAb**Cat#: orb766248 (Manual)**

For research use only. Not intended for diagnostic use.

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| Product Name | Ribosomal Protein S3 rabbit pAb |
| Host species | Rabbit |
| Applications | WB;IHC;IF;ELISA |
| Species Cross-Reactivity | Human;Mouse;Rat |
| Recommended dilutions | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications. |
| Immunogen | The antiserum was produced against synthesized peptide derived from human RPS3. AA range:171-220 |
| Specificity | Ribosomal Protein S3 Polyclonal Antibody detects endogenous levels of Ribosomal Protein S3 protein. |
| Formulation | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.. |
| Storage | Store at -20°C. Avoid repeated freeze-thaw cycles. |
| Protein Name | 40S ribosomal protein S3 |
| Gene Name | RPS3 |
| Cellular localization | Cytoplasm . Nucleus . Nucleus, nucleolus . Mitochondrion inner membrane ; Peripheral membrane protein . Cytoplasm, cytoskeleton, spindle . 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). . |

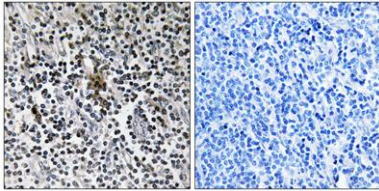
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| Purification | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| Clonality | Polyclonal |
| Concentration | 1 mg/ml |
| Observed band | 30kD |
| Human Gene ID | 6188 |
| Human Swiss-Prot Number | P23396 |
| Alternative Names | RPS3; OK/SW-cl.26; 40S ribosomal protein S3 |

Background

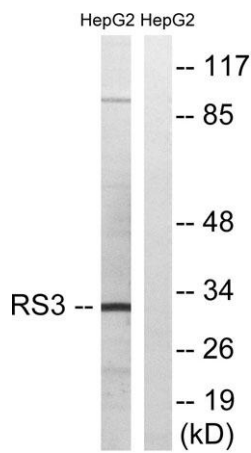
Ribosomes, the organelles that catalyze protein synthesis, consist of a small 40S subunit and a large 60S subunit. Together these subunits are composed of 4 RNA species and approximately 80 structurally distinct proteins. This gene encodes a ribosomal protein that is a component of the 40S subunit, where 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



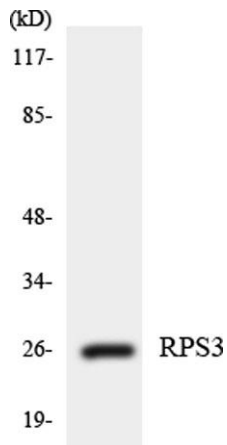
Western Blot analysis of various cells using Ribosomal Protein S3 Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human tonsil tissue, using RPS3 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HepG2 cells, using RPS3 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from RAW264.7 cells using RPS3 antibody.