

For Research Use Only

# GRSF1 Polyclonal antibody

Catalog Number:30992-1-AP



## Basic Information

|   |   |   |
|---|---|---|
| <b>Catalog Number:</b><br>30992-1-AP                          | <b>GenBank Accession Number:</b><br>NM_002092             | <b>Purification Method:</b><br>Antigen affinity Purification                                    |
| <b>Size:</b><br>150ul , Concentration: 550 ug/ml by Nanodrop; | <b>GeneID (NCBI):</b><br>2926                             | <b>Recommended Dilutions:</b><br>WB: 1:5000-1:50000<br>IHC: 1:500-1:2000<br>IF/ICC: 1:200-1:800 |
| <b>Source:</b><br>Rabbit                                      | <b>UNIPROT ID:</b><br>Q12849                              |   |
| <b>Isotype:</b><br>IgG  | <b>Full Name:</b><br>G-rich RNA sequence binding factor 1 |   |
| <b>Immunogen Catalog Number:</b><br>AG34305                   | <b>Calculated MW:</b><br>53 kDa                           |   |
|   | <b>Observed MW:</b><br>50-53 kDa                          |   |

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Species Specificity:**  
human

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB :** HeLa cells, HepG2 cells, L02 cells, PANC-1 cells

**IHC :** human colon cancer tissue,

**IF/ICC :** U-251 cells, A431 cells

## Background Information

Grsf1 (G-rich RNA sequence binding factor 1) is an RNA-binding protein, which belongs to the F/H family of heterogeneous ribonucleoprotein, and contains three quasi-RNA recognition motifs (qRRM). These domains enable it to bind to RNA molecules, and it interacts with various RNA molecules, including mRNA, lncRNA and circRNA, affecting the metabolism and function of these RNAs. The expression of GRSF1 is closely related to cell senescence. It was found that with the aging of cells, the methylation level in the promoter region of GRSF1 gene increased, which led to the decrease of its expression. The decrease of GRSF1 expression is related to the activation of various aging-related markers and the increase of the secretion of aging-related secretory phenotype (SASP) factors, which may play a key role in maintaining the normal function of cells and delaying the aging process. GRSF1 also plays an important role in the mitochondria of cells. It interacts with RNase P and participates in the processing of mitochondrial RNA, including the processing of classical and tRNA-free RNA precursors. In the case of GRSF1 deletion, the primary transcript of mitochondrial RNA is cut abnormally, which leads to the decrease of the expression of mitochondrial coding protein, and then causes mitochondrial dysfunction. Isoform 1, 53 kDa, located in mitochondria; Isoform 2, 36 kDa, located in cytoplasm.

## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

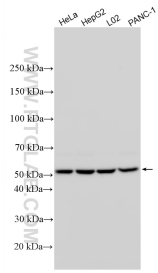
For technical support and original validation data for this product please contact:

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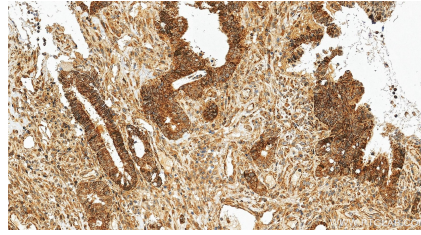
E: proteintech@ptglab.com  
W: ptglab.com

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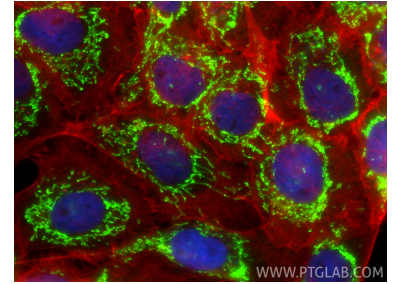
## Selected Validation Data



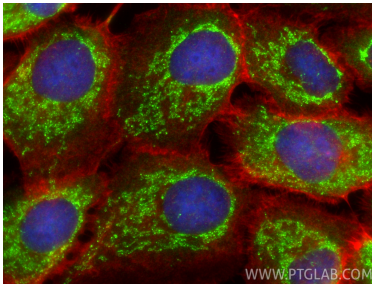
Various lysates were subjected to SDS PAGE followed by western blot with 30992-1-AP (GRSF1 antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 30992-1-AP (GRSF1 antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed A431 cells using GRSF1 antibody (30992-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-phalloidin (red).



Immunofluorescent analysis of (-20°C Ethanol) fixed U-251 cells using GRSF1 antibody (30992-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-phalloidin (red).