For Research Use Only

GRSF1 Polyclonal antibody

Catalog Number:30992-1-AP

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Basic Information

Catalog Number:
30992-1-AP

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG34305

GenBank Accession Number:
NM_002092

GeneID (NCBI):
2926

UNIPROT ID:
Q12849

Full Name:
G-rich RNA sequence binding factor 1

Calculated MW:
53 kDa

Observed MW:
50-53 kDa

Purification Method:
Antigen affinity Purification

Recommended Dilutions:
WB: 1:5000-1:50000
IHC: 1:500-1:2000
IF/ICC: 1:200-1:800

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

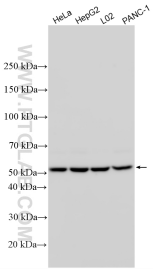
Grsf1 (G-rich RNA sequence binding factor 1) is an RNA-binding protein, which belongs to the F/H family of heterogeneous ribonucleoprotein, and contains three quasi-RNA recognition motifs (qRRM). These domains enable it to bind to RNA molecules, and it interacts with various RNA molecules, including 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

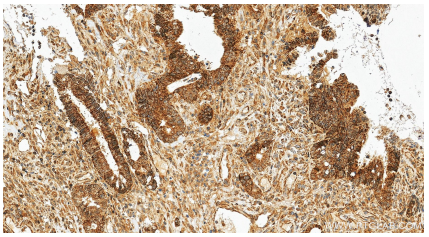
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

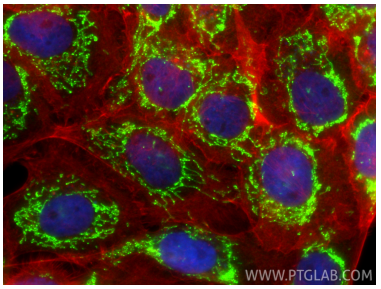
Selected Validation Data



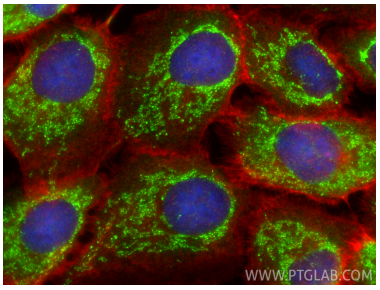
Various lysates were subjected to SDS PAGE followed by western blot with 30992-1-AP (GRSF1 antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



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).