

For Research Use Only

# GCN1 Polyclonal antibody

Catalog Number:30993-1-AP



## Basic Information

<b>Catalog Number:</b> 30993-1-AP	<b>GenBank Accession Number:</b> BC153881	<b>Purification Method:</b> Antigen affinity Purification
<b>Source:</b> Rabbit	<b>GeneID (NCBI):</b> 10985	<b>Recommended Dilutions:</b> WB: 1:1000-1:6000
<b>Isotype:</b> IgG	<b>UNIPROT ID:</b> Q92616	<b>IF/ICC:</b> 1:50-1:500
<b>Immunogen Catalog Number:</b> AG34311	<b>Full Name:</b> GCN1 general control of amino-acid synthesis 1-like 1 (yeast)	
	<b>Calculated MW:</b> 293 kDa	
	<b>Observed MW:</b> 250 kDa	

## Applications

<b>Tested Applications:</b> WB, IF/ICC, ELISA	<b>Positive Controls:</b> WB : HeLa cells, mouse testis tissue
<b>Species Specificity:</b> human, mouse	<b>IF/ICC :</b> U2OS cells,

## Background Information

GCN1 (General Control Nonderepressible 1), also designated as GCN1L1, is a member of the GCN1 protein family. Its core function is to serve as a central regulator of the integrated stress response (ISR), acting as a key molecular adaptor that facilitates the activation of GCN2 kinase. Under stress conditions such as amino acid starvation, GCN1 binds uncharged tRNA through its C-terminal domain while concurrently binding and activating GCN2 via its N-terminal domain. This leads to the phosphorylation of eIF2  $\alpha$ , thereby initiating the ISR to modulate translation and gene expression. Furthermore, GCN1 participates in ribosome-associated quality control (RQC). In coordination with the RQT complex, it mediates the ubiquitination and subsequent degradation of aberrant nascent polypeptide chains on stalled ribosomes, thus preserving protein homeostasis.

## 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

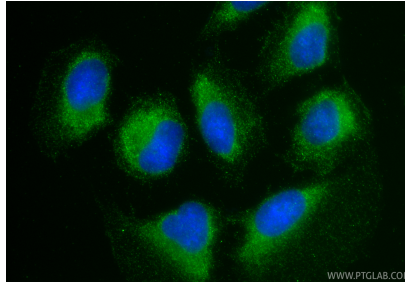
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## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 30993-1-AP (GCN1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Ethanol) fixed U2OS cells using GCN1 antibody (30993-1-AP) at dilution of 1:200 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).