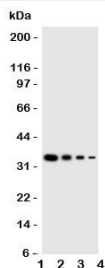


GCN2 Antibody (R31137)

Catalog No.	Formulation	Size
R31137	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	Q9QZ05
Applications	Western Blot : 0.5-1ug/ml
Limitations	This GCN2 antibody is available for research use only.



Western blot testing of GCN2 antibody; Lane 1: Recombinant mouse protein 10ng; 2: 5ng; 3: 2.5ng; 4: 1.25ng

Description

Eukaryotic Translation Initiation Factor 2-Alpha Kinase 4, also called GCN2 (General control nonderepressible 2), is an enzyme that in humans is encoded by the EIF2AK4 gene. It belongs to a family of kinases that phosphorylate the alpha subunit of eukaryotic translation initiation factor-2 to downregulate protein synthesis in response to varied cellular stresses. Hartz(2005) mapped the gene to chromosome 15q15.1 based on an alignment of the protein sequence with the genomic sequence. Berlanga et al.(1999) demonstrated that GCN2 immunopurified from mouse liver extracts could phosphorylate rabbit Eif2 in vitro. Serum starvation increased the level of phosphorylated EIF2-alpha more than 2-fold in human embryonic kidney cells transfected with mouse Eif2ak4. Costa-Mattioli et al.(2005) reported a unique feature of

hippocampal slices from GCN2-null mice: in CA1, a single 100-Hz train induced a strong and sustained long-term potentiation(late LTP or L-LTP), which was dependent on transcription and translation.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the GCN2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the middle region of mouse GCN2 (ATDHLAFTAEGKQDDQAGD) was used as the immunogen for this GCN2 antibody.

Storage

After reconstitution, the GCN2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.