Human GCN2 Antibody

Monoclonal Mouse IgG_{2B} Clone # 708210

Catalog Number: MAB6878

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GCN2 in direct ELISAs.
Source	Monoclonal Mouse IgG_{2B} Clone # 708210
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human GCN2 Arg22-Lys139 Accession # Q9P2K8
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

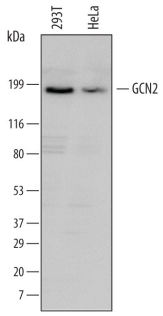
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA

Western Blot



Detection of Human GCN2 by Western Blot. Western blot shows lysates of 293T human embryonic kidney cell line and HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human GCN2 Monoclonal Antibody (Catalog # MAB6878) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for GCN2 at approximately 190 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

GCN2, also known as EIF2AK4, is a widely expressed 190 kDa ribosome-associated Ser/Thr kinase that plays an important role in the control of protein translation. In response to amino acid deprivation or UV irradiation, GCN2 phosphorylates the alpha subunit of eukaryotic initiation factor 2 (eIF2a) at Ser51 and induces a delay in entry to S phase of the cell cycle. Increased GCN2 activity in solid tumors enhances the production of amino acids and contributes to tumor cell survival in conditions of nutrient deprivation. GCN2 contains an RWD domain (aa 21-134), a pseudo-kinase domain (aa 296-539), a catalytic domain (aa 590-1001), and a histidyl tRNA synthase-like domain (aa 1022-1493) followed by a C-terminal ribosome interacting region. Alternate splicing generates an isoform with a short deletion in the kinase domain and an isoform that is truncated at the N-terminal end of the kinase domain. Within aa 22-139, human GCN2 shares 91% aa sequence identity with mouse and rat GCN2.

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