SignalChem
Specialists in Signaling Proteins
1-866-9 KINASE (54-6273)

Catalogue #	Aliquot Size
P80-65R-100	100 µg

Anti-phospho-EIF2AK2 (Thr446)

Rabbit Polyclonal Antibody

Catalog # P80-65R
Lot # J1178-14

Cited Applications
WB, IHC

Suggested Dilutions:
WB: 1:500-1:1000 IHC: 1:50-1:100

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity
Recognizes the EIF2AK2 protein phosphorylated at threonine 446

Cross Reactivity
Human and Mouse

Host/Isotype/Clone#
Rabbit, IgG

Immunogen
Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr446

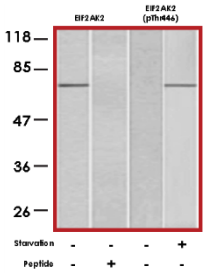
Formulation
PBS (pH 7.4) 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Scientific Background
EIF2AK2 (also known as double-stranded RNA-activated protein kinase and PKR) is a protein kinase that is involved in HIV/gp120-associated neurodegeneration (1). EIF2AK2 is a mediator of gp120 neurotoxicity and is a substrate for a family of protein kinases involved in environmental stress responses. Activation of EIF2AK2 by dsRNA leads to autophosphorylation at Thr446/451. Activated EIF2AK2 phosphorylates the alpha subunit of EIF2, which in turn inhibits protein synthesis. EIF2AK2 plays a critical role in mRNA translation, cell proliferation and apoptosis. Crosstalk between EIF2AKs and p53 has implications in cell proliferation and tumorigenesis (2).

References

1. Baltzis, D. et al: The eIF2alpha kinases PERK and PKR activate glycogen synthase kinase 3 to promote the proteasomal degradation of p53. J. Biol Chem. 2007; 282(43):31675-87
2. Alirezaei, M. et al: Human immunodeficiency virus-1/surface glycoprotein 120 induces apoptosis through RNA-activated protein kinase signaling in neurons. J. Neurosci. 2007;27(41):11047-55.

Sample Data



Western blot analysis of extracts from K562 cells using EIF2AK2 antibody (lanes 1 and 2) and anti-phospho-EIF2AK2 (Thr446) antibody (lanes 3 and 4).

Anti-phospho-EIF2AK2 (Thr446)

Rabbit Polyclonal Antibody

Catalog Number	P80-65R
Specific Lot Number	J1178-14
Purification	Affinity chromatography
Stability	1yr at –20°C from date of shipment
Storage & Shipping	Store product at –20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
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