bsm-51601M **[Primary Antibody]**

EIF2AK2 Mouse mAb

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DATASHEET

Host: Mouse
Isotype: IgG1, k
Clonality: Monoclonal
CloneNo.: R5D3
GeneID: 5610
SWISS: P19525
Target: EIF2AK2
Purification: affinity purified by Protein G
Concentration: 1mg/ml
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: PKR is an interferon-inducible serine/threonine specific protein kinase. It is widely expressed in eukaryotic organisms and activated by double stranded RNA. Activation of PKR by dsRNAs leads to autophosphorylation at multiple sites. Phosphorylation of Thr446 and Thr451 in the PKR activation loop is required in vivo and in vitro for high level kinase activity. PKR phosphorylates its natural substrate, the alpha subunit of eukaryotic protein synthesis initiation factor 2 (EIF2 alpha), leading to the inhibition of protein synthesis. PKR is also involved in TLR signaling and mediates apoptosis in fibroblasts in response to viral infection and inflammatory cytokines, and also activates IKK and NFKB, thereby suppressing apoptosis. Recently, it has been reported that PKR also phosphorylates human p53 on serine 392. PKR might play a role in ER stress-induced apoptosis and in Alzheimer's disease. Alzheimer cases show prominent PKR activation in association with neuritic plaques and pyramidal neurons in the hippocampus and neocortex.

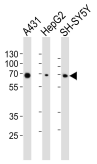
Applications: **WB** (1:500-2000)
ICC/IF (1:20-50)

Reactivity: Human

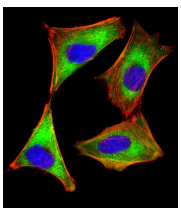
Predicted MW.: 61 kDa

Subcellular Location: Cytoplasm ,Nucleus

VALIDATION IMAGES



Sample: Lane 1: A431 cell lysates Lane 2: HepG2 cell lysates Lane 3: SH-SY5Y cell lysates Primary: Anti-EIF2AK2 (bsm-51601M) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution Predicted band size: 61 kD Observed band size: 69 kD



Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (EIF2AK2) monoclonal Antibody, Unconjugated (bsm-51601M) 1:25, 90 minutes at 37°C; followed by a conjugated Goat Anti-Mouse IgG antibody at 37°C for 90 minutes, Alexa Fluor® 555 conjugated with Phalloidin(red) was used to stain the cell Cytoplasmic actin.The nuclear counter stain is DAPI (blue)

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.