bs-3335R **[Primary Antibody]**

phospho-PKR (Thr446) Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5610 **SWISS:** P19525

Target: PKR (Thr446)

Immunogen: KLH conjugated Synthesised phosphopeptide derived from human PKR around the phosphorylation site of Thr446: KR(p-T)RS.

Purification: affinity purified by Protein A

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.

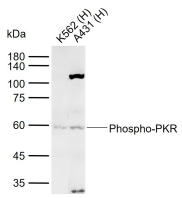
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (2ug/Test)

Reactivity: Human, Rat (predicted: Mouse)

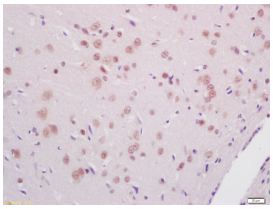
Predicted MW.: 62 kDa

Subcellular Location: Cytoplasm ,Nucleus

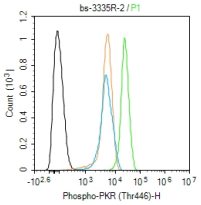
VALIDATION IMAGES



Sample: Lane 1: Human K562 cell lysates Lane 2: Human A431 cell lysates Primary: Anti-Phospho-PKR (Thr446) (bs-3335R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 62 kDa Observed band size: 60 kDa



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-Phospho-PKR (Thr446) Polyclonal Antibody, Unconjugated(bs-3335R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control（black line）:Hela. Primary Antibody (green line): Rabbit Anti-Phospho-PKR (Thr446) antibody (bs-3335R) Dilution:2ug/Test; Secondary Antibody（white blue line）: Goat anti-rabbit IgG-AF488 Dilution: 0.5ug/Test. Isotype control（orange line）: Normal Rabbit IgG Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=5.2]** Yue Hu. et al.PKR Inhibition Prevents Neuroinflammation and Rescues Depressive-Like Behaviors via BDNF/TrkB Signaling.JOURNAL OF NEUROIMMUNE PHARMACOLOGY.2025 Feb 4;20(1):13. Western blot ;Rabbit. 39903347
- **[IF=4.9]** Weifen Li. et al.Uncoupling serotonin (2C) and dopamine (D2) receptor heterodimers ameliorate PTSD-like behaviors..JOURNAL OF AFFECTIVE DISORDERS.2025 Mar 21:380:63-77. Western blot ;Human,Mouse. 40122260
- **[IF=3.322]** Hyeon Jin Kim. et al. Structural study of novel vaccinia virus E3L and dsRNA-dependent protein kinase complex. BIOCHEM BIOPH RES CO. 2023 Jul;665:1 IF ;Human. 37146409
- **[IF=2.5]** Muzi Zhang. et al. EPSTI1 promotes osteoclast differentiation and bone resorption by PKR/NF-κB signaling. BIOCHEM BIOPH RES CO. 2024 Nov;734:150463 IF,WB ;Mouse,Human. 39083969