

**bs-3336R****[ Primary Antibody ]****phospho-PKR (Thr451) Rabbit pAb****Bioss**  
**ANTIBODIES**

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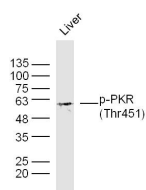
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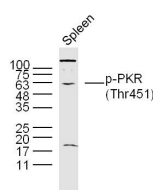
400-901-9800

**— DATASHEET —****Host:** Rabbit**Isotype:** IgG**Clonality:** Polyclonal**GeneID:** 5610**SWISS:** P19525**Target:** PKR (Thr451)**Immunogen:** KLH conjugated Synthesised phosphopeptide derived from human PKR around the phosphorylation site of Thr451: KG(p-T)LR.**Purification:** affinity purified by Protein A**Concentration:** 1mg/ml**Storage:** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

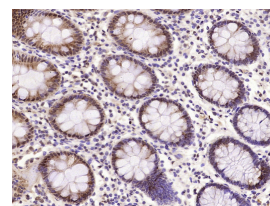
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**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)**ICC/IF** (1:100)**Reactivity:** Human, Mouse**Predicted MW.:** 62 kDa**Subcellular Location:** Cytoplasm ,Nucleus**— VALIDATION IMAGES —**

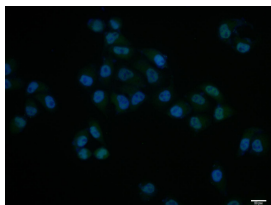
Sample: Liver (Mouse) Lysate at 40 ug Primary:  
Anti- p-PKR (Thr451) (bs-3336R) at 1/300 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at  
1/20000 dilution Predicted band size: 62 kD  
Observed band size: 62 kD



Sample: Spleen (Mouse) Lysate at 40 ug Primary:  
Anti- p-PKR(Thr451) (bs-3336R) at 1/300 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at  
1/20000 dilution Predicted band size: 62 kD  
Observed band size: 62 kD



Paraformaldehyde-fixed, paraffin embedded (Human colon carcinoma); Antigen retrieval by microwave in sodium citrate buffer (pH6.0) ; Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes; Blocking buffer (3% BSA) at RT for 30min; Antibody incubation with (Phospho-PKR (Thr451)) Polyclonal /Monoclonal Antibody, Unconjugated (bs-3336R) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP) and DAB staining.



HeLa cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Phospho-PKR (Thr451)) polyclonal Antibody, Unconjugated (bs-3336R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

## — SELECTED CITATIONS —

- **[IF=6.8]** Lu, Danli. et al. Melatonin Offers Dual-Phase Protection to Brain Vessel Endothelial Cells in Prolonged Cerebral Ischemia-Recanalization Through Ameliorating ER Stress and Resolving Refractory Stress Granule. TRANSL STROKE RES. 2022 Oct;;1-19 WB,IP ;Mouse. 36181629
- **[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