bs-4842R **[Primary Antibody]**

phospho-EIF2S1 (Ser51) Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 1965 **SWISS:** P05198

Target: EIF2S1 (Ser51)

Immunogen: KLH conjugated synthesised phosphopeptide derived from human eIF2 alpha around the phosphorylation site of Ser51: EL(p-S)RR.

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: eIF2 alpha is a 36 kDa protein which is ubiquitously expressed in many cell types. The eIF2 protein, which is composed of three subunits (alpha, beta and gamma), is one of the key molecules in the initiation of translation. In mammalian cells, eIF2 alpha is phosphorylated at serine 51 (human EIF2 alpha, the equivalent residue in mouse is serine 52) by at least two kinases: the haem-controlled repressor (HCR) and the interferon inducible double stranded RNA-dependent protein kinase (PKR). Phosphorylation of eIF2 alpha blocks the GDP-GTP exchange activity of eIF2 beta, resulting in the suppression of protein synthesis. The phosphorylation of eIF2 alpha is an important regulatory process in protein synthesis.

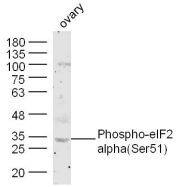
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Mouse, Rat (predicted: Cow, Chicken)

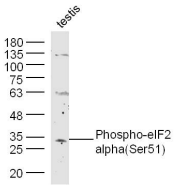
Predicted MW.: 36 kDa

Subcellular Location: Cytoplasm

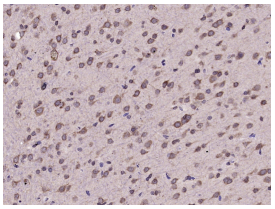
VALIDATION IMAGES



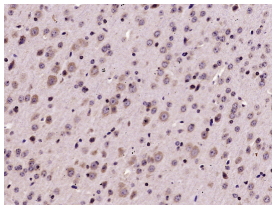
Sample: Ovary (Mouse) Lysate at 40 ug Primary: Anti-Phospho-eIF2 alpha(Ser51) (bs-4842R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 36 kD Observed band size: 34 kD



Sample: Testis (Mouse) Lysate at 40 ug Primary: Anti-Phospho-eIF2 alpha(Ser51) (bs-4842R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 36 kD Observed band size: 34 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); 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-eIF2 alpha(Ser51)) Polyclonal Antibody, Unconjugated (bs-4842R) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP)and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); 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-eIF2 alpha(Ser51)) Polyclonal Antibody, Unconjugated (bs-4842R) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP)and DAB staining.

SELECTED CITATIONS

- **[IF=38.637]** Qiyi Zhao. et al. Targeting Mitochondria-Located circRNA SCAR Alleviates NASH via Reducing mROS Output. Cell. 2020 Oct;183:76 WB ;Humann. 32931733
- **[IF=14.024]** Berger,et al.Localized Myosin II Activity Regulates Assembly and Plasticity of the Axon Initial Segment.(2018) Neuron. 97:555-570.e6. ICC ;Mouse. 29395909
- **[IF=13.281]** Tingting Wang. et al. Synergistic Lysosomal Impairment and ER Stress Activation for Boosted Autophagy Dysfunction Based on Te Double-Headed Nano-Bullets. SMALL. 2022 May 29 WB ;Mouse. 35644863
- **[IF=11.329]** Yao et al. A non-canonical pathway regulates ER stress signaling and blocks ER stress-induced apoptosis and heart failure. (2017) Nat.Commu. 8:133 WB ;Human. 28743963
- **[IF=9.988]** Yue Zhang. et al. Endoplasmic reticulum stress-controlled autophagic pathway promotes polystyrene microplastics-induced myocardial dysplasia in birds. ENVIRON POLLUT. 2022 Oct;311:119963 WB ;Chicken. 35973452