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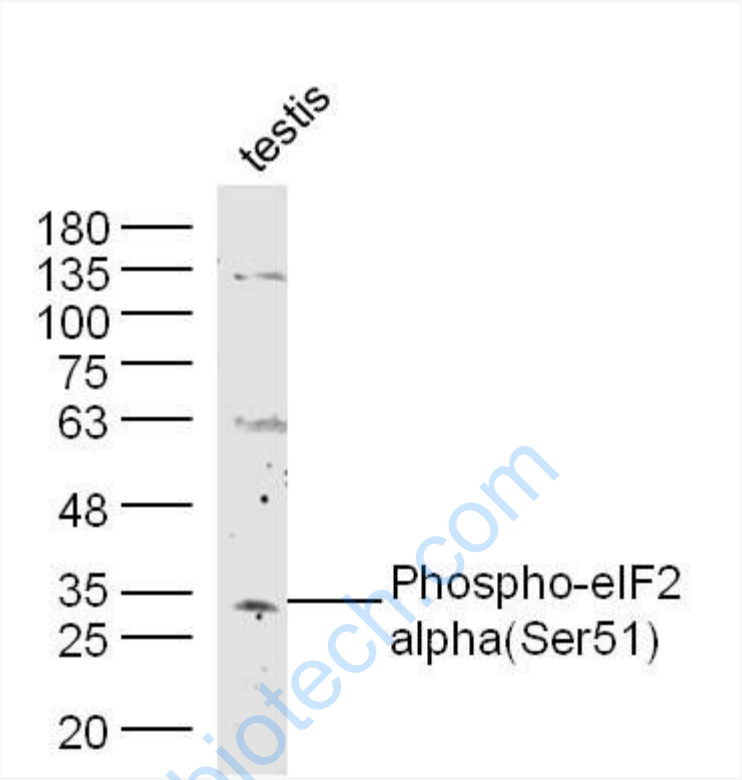
Rabbit Anti-Phospho-eIF2 alpha (Ser51) antibody

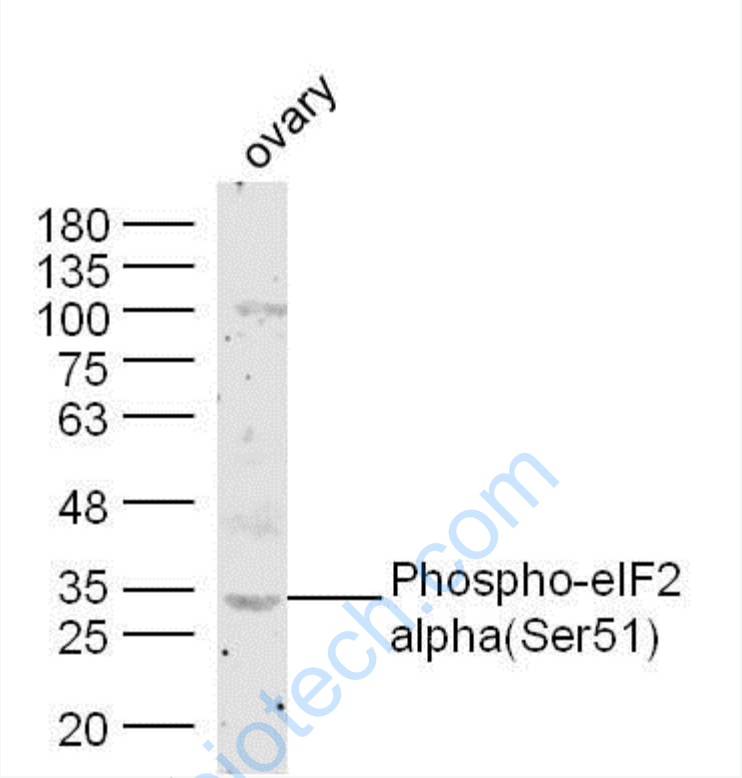
SL4842R

Product Name:	Phospho-eIF2 alpha (Ser51)
Chinese Name:	磷酸化真核启动因子2α抗体
Alias:	EIF2S1 (phospho S51); EIF2S1 (phospho-Ser51); CDA 02; CDA02; eIF 2 alpha; EIF 2; EIF 2A; EIF-2alpha; EIF2; EIF2A; EIF2alpha; eIF2S1; Eukaryotic Translation Initiation Factor 2 alpha; Eukaryotic translation initiation factor 2 subunit 1 alpha 35kDa; Eukaryotic translation initiation factor 2 subunit alpha.
文献引用 PubMed :	**Specific References(1)**|SL4842R has been referenced in 1 publications. **[IF=2.33]**He, Yihuai, et al. "Sustained endoplasmic reticulum stress inhibits hepatocyte proliferation via downregulation of c-Met expression." Molecular and Cellular Biochemistry (2014): 1-8.**WB;Human**. PubMed:24390087
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg/TestIF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	36kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human eIF2 alpha around the phosphorylation site of Ser51:EL(p-S)RR
Lsotype:	IgG
Purification:	affinity purified by Protein A

Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The translation initiation factor EIF2 catalyzes the first regulated step of protein synthesis initiation, promoting the binding of the initiator tRNA to 40S ribosomal subunits. Binding occurs as a ternary complex of methionyl-tRNA, EIF2, and GTP. EIF2 is composed of 3 nonidentical subunits, the 36-kD EIF2-alpha subunit (EIF2S1), the 38-kD EIF2-beta subunit (EIF2S2; MIM 603908), and the 52-kD EIF2-gamma subunit (EIF2S3; MIM 300161). The rate of formation of the ternary complex is modulated by the phosphorylation state of EIF2-alpha (Ernst et al., 1987 [PubMed 2948954]).[supplied by OMIM, Feb 2010]. **Function:** Functions in the early steps of protein synthesis by forming a ternary complex with GTP and initiator tRNA. This complex binds to a 40S ribosomal subunit, followed by mRNA binding to form a 43S preinitiation complex. Junction of the 60S ribosomal subunit to form the 80S initiation complex is preceded by hydrolysis of the GTP bound to eIF-2 and release of an eIF-2-GDP binary complex. In order for eIF-2 to recycle and catalyze another round of initiation, the GDP bound to eIF-2 must exchange with GTP by way of a reaction catalyzed by eIF-2B. **Subunit:** Heterotrimer composed of an alpha, a beta and a gamma chain. Component of an EIF2 complex at least composed of CELF1/CUGBP1, CALR, CALR3, EIF2S1, EIF2S2, HSP90B1 and HSPA5. Interaction with METAP2 protects EIF2S1 from inhibitory phosphorylation. Interacts with ABCF1 isoform 2. Associates with ribosomes. **Subcellular Location:** Cytoplasmic granule. Note=The cytoplasmic granules are stress granules which are a dense aggregation in the cytosol composed of proteins and RNAs that appear when the cell is under stress. Co-localizes with NANOS3 in the stress granules. **Post-translational modifications:** Substrate for at least 4 kinases: EIF2AK3/PERK, GCN2, HRI and PKR. Phosphorylation stabilizes the eIF-2/GDP/eIF-2B complex and prevents GDP/GTP exchange reaction, thus impairing the recycling of eIF-2 between successive rounds of initiation and leading to global inhibition of translation. In case of infection by vaccinia virus or rotavirus A, eIF2S1 phosphorylation state is modulated. **Similarity:** Belongs to the eIF-2-alpha family. Contains 1 S1 motif domain.

	SWISS: P05198 **Gene ID:** 1965 **Database links:** Entrez Gene: 1965 Human Entrez Gene: 13665 Mouse Entrez Gene: 54318 Rat Omim: 603907 Human SwissProt: P05198 Human SwissProt: Q6ZWX6 Mouse SwissProt: P68101 Rat Unigene: 151777 Human Unigene: 196220 Mouse Unigene: 1488 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:	 Sample: Testis (Mouse) Lysate at 40 ug Primary: Anti-Phospho-eIF2 alpha(Ser51) (SL4842R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 36 kD Observed band size: 34 kD



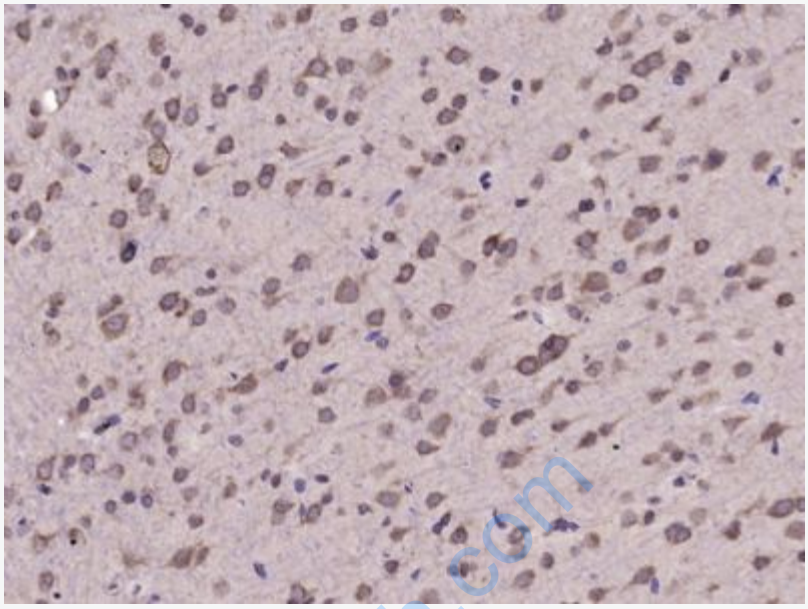
Sample: Ovary (Mouse) Lysate at 40 ug

Primary: Anti-Phospho-eIF2 alpha(Ser51) (SL4842R) at 1/300 dilution

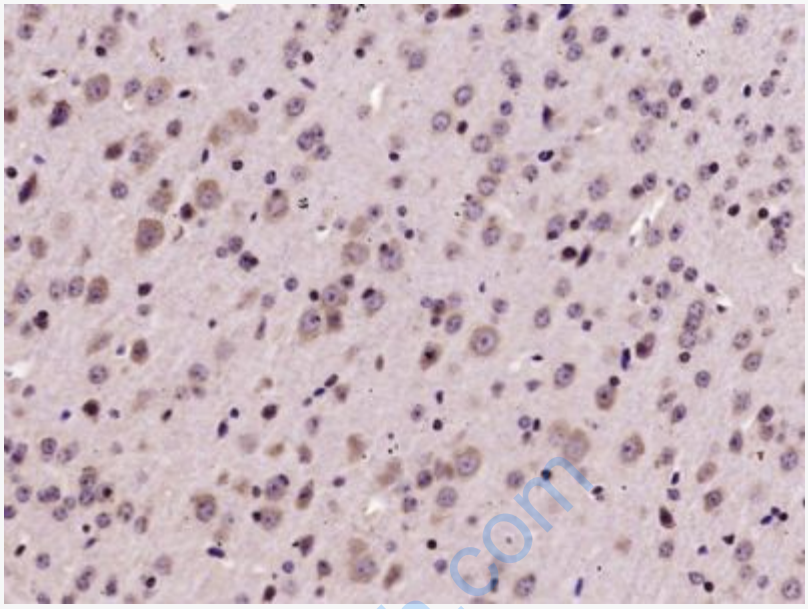
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 36 kD

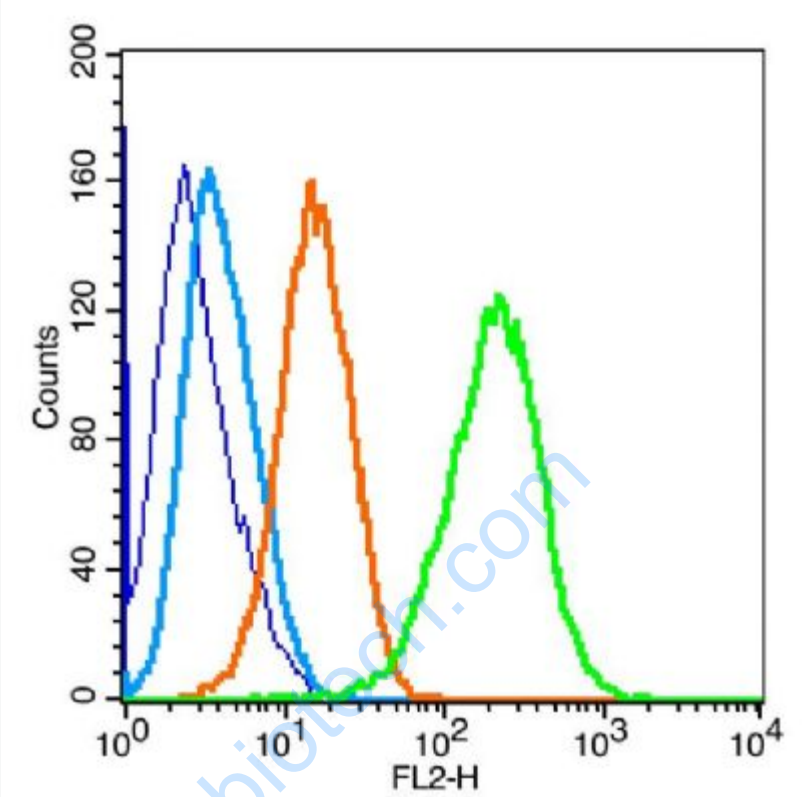
Observed band size: 34 kD



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 (SL4842R) 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 (SL4842R) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP)and DAB staining.



Blank control(blue): U-87MG(fixed with 2% paraformaldehyde (10 min), then permeabilized with 90% ice-cold methanol for 30 min on ice).

Primary Antibody:Rabbit Anti-Phospho-eIF2 alpha(Ser51) antibody(SL4842R), Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.