

## Product datasheet for **AP20862PU-N**

### eIF2 alpha (EIF2S1) pSer51 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500 - 1/1000. <b>Immunohistochemistry on paraffin sections</b> 1/50 - 1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of eIF2alpha protein only when phosphorylated at Ser51.
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 38 kDa
Gene Name:	eukaryotic translation initiation factor 2 subunit alpha
Database Link:	<u><a href="#">Entrez Gene 13665 Mouse</a></u> <u><a href="#">Entrez Gene 54318 Rat</a></u> <u><a href="#">Entrez Gene 1965 Human P05198</a></u>



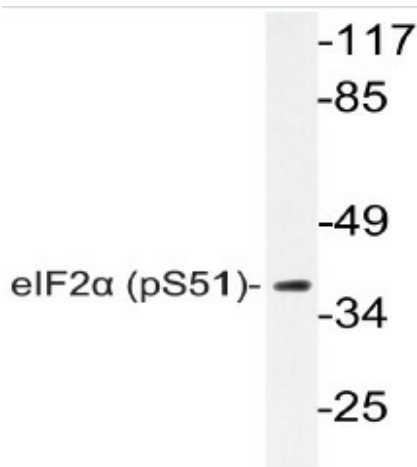
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**Background:**

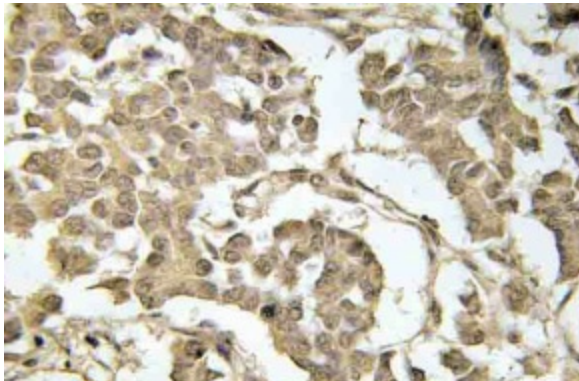
Phosphorylation of the alpha subunit of eukaryotic initiation factor 2 (eIF2alpha) is known to be an important translational control mechanism. Regulation of mammalian eIF2alpha activity is directly governed by specific phosphorylation on Serine 52. In mammalian cells, eIF2alpha is phosphorylated at Serine 52 by at least two kinases, the haem-controlled repressor and the interferon-inducible double stranded RNA-dependent protein kinase. This phosphorylation event results in an inhibition in the exchange of bound nucleotides and the recycling of eIF2alpha. In addition, phosphorylation of eIF2alpha blocks the GDP-GTP exchange activity of eIF2beta, resulting in the suppression of protein synthesis.

**Synonyms:**

EIF2-A, eIF-2A, eIF-2-alpha, eIF-2alpha, eIF2 alpha

**Product images:**

Western blot (WB) analyzes of p-eIF2alpha antibody (Cat.-No.: AP20862PU-N) in extracts from Jurkat insulin cells.



Immunohistochemistry (IHC) analyzes of p-eIF2alpha (Cat.-No.: AP20862PU-N) in paraffin-embedded human breast carcinoma tissue.