

## eIF2a(phospho-Ser49) Antibody

Catalog No: #11511



Package Size: #11511-1 50ul #11511-2 100ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

## Description

Product Name	eIF2a(phospho-Ser49) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Applications	WB IHC IF
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of eIF2a only when phosphorylated at Serine 49.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of Serine 49 (L-L-S(p)-E-L) derived from Human eIF2a.
Target Name	eIF2a
Modification	Phospho
Other Names	Eukaryotic translation initiation factor 2 subunit alpha
Accession No.	Swiss-Prot: P05198NCBI Protein: NP_004085.1
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

## Application Details

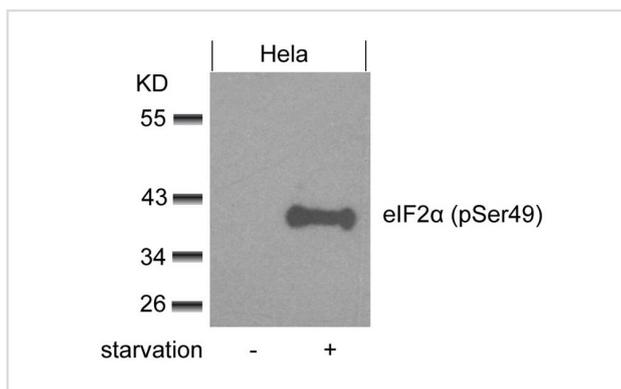
Predicted MW: 38kd

Western blotting: 1:500~1:1000

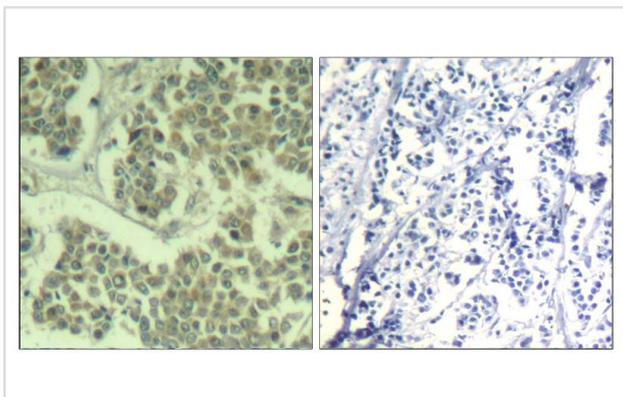
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

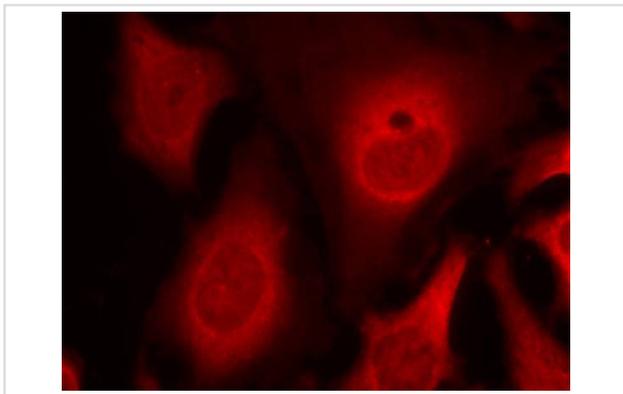
## Images



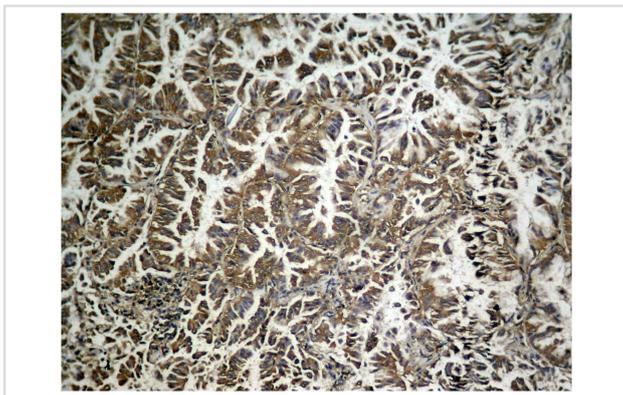
Western blot analysis of extracts from HeLa cells untreated or treated with starvation using eIF2a(phospho-Ser49) Antibody #11511.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using eIF2 $\alpha$  (Phospho-Ser49) Antibody #11511 (left) or the same antibody preincubated with blocking peptide #51511 (right).



Immunofluorescence staining of methanol-fixed HeLa cells using eIF2 $\alpha$ (phospho-Ser49) Antibody #11511.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue, using eIF2 $\alpha$  (Phospho-Ser49) Antibody #11511.

## Background

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.

Kimball, S.R. (1999) *Int. J. Biochem. Cell Biol.* 31, 25-29.

De Haro, C. et al. (1996) *FASEB J.* 10, 1378-1387.

Sheikh, M.S. and Fornace Jr., A.J. (1999) *Oncogene* 18, 6121-6128.

Cheshire, J.L. et al. (1999) *J. Biol. Chem.* 274, 4801-4806.

Note: This product is for in vitro research use only and is not intended for use in humans or animals.