

eIF2a(Phospho-Ser51) Antibody

Catalog No: #11279

Package Size: #11279-1 50ul #11279-2 100ul

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Description

Product Name	eIF2a(Phospho-Ser51) 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	IF, WB, IHC, ELISAB B B
Species Reactivity	Human, Mouse, Rat, Dog, Pig, Fish
Specificity	The antibody detects endogenous level of eIF2a only when phosphorylated at serine 51.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of serine 51 (E-L-S(p)-R-R) derived from Human eIF2a.
Target Name	eIF2a
Modification	Phospho
Other Names	Eukaryotic translation initiation factor 2 subunit alpha; EIF-2A;
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 ²⁺ and Ca ²⁺), 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

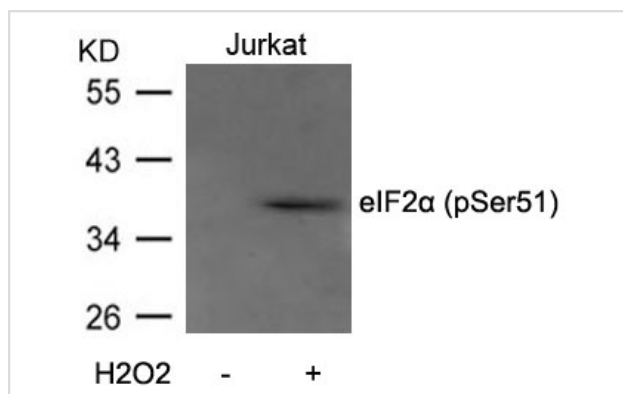
Predicted MW: 38kd

Western blotting: 1:500~1:1000

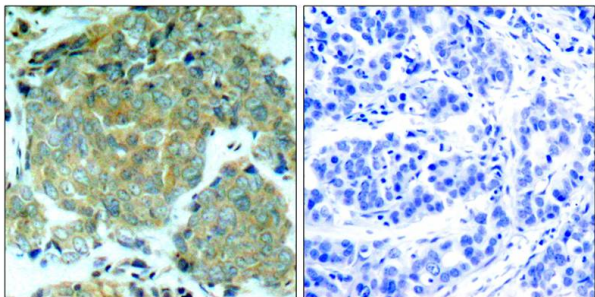
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

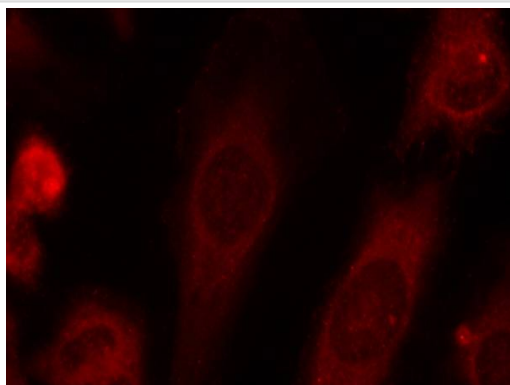
Images



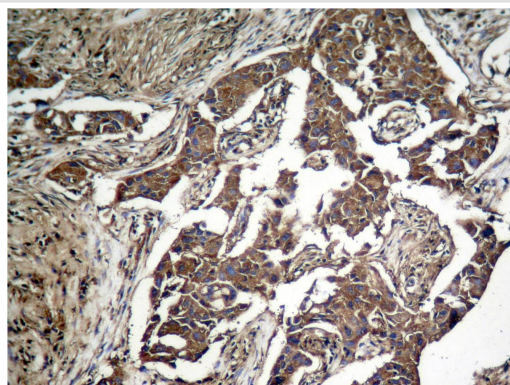
Western blot analysis of extracts from Jurkat cells untreated or treated with H₂O₂ using eIF2a(Phospho-Ser51) Antibody #11279.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using eIF2α (Phospho-Ser51) Antibody #11279 (left) or the same antibody preincubated with blocking peptide #51279 (right).



Immunofluorescence staining of methanol-fixed HeLa cells using eIF2α(Phospho-Ser51) Antibody #11279.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue, using eIF2α (Phospho-Ser51) Antibody #11279.

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.

Xavier Saelens, et al. (2001) J. Biol. Chem; 276: 41620 - 41628.

Hiroyuki Kubota, et al. (2003) J. Biol. Chem ; 278: 20457 - 20460.

Shijian Chu, et al. (2006) Am J Physiol Lung Cell Mol Physiol ; 291: L983 - L992.

Eileen Connolly, et al. (2006) Mol. Cell. Biol ; 26: 3955 - 3965.

Published Papers

el at., Mechanisms of impaired pancreatic β ?cell function in high?fat diet?induced obese mice: The role of endoplasmic reticulum stress.In Mol Med Rep on 2020 May; by Yi X, Cai X, et al..PMID:32323766 , , (2020)

[PMID:32323766](#)

el at., Suppressing endoplasmic reticulum stress-related autophagy attenuates retinal light injury. In Aging (Albany NY) on 2020 Aug 28 by Jing-Yao Song, Bin Fan,et al..PMID: 32858529, , (2020)

[PMID:32858529](#)

el et., 2-Troglitazone promotes cytostatic rather than pro-apoptotic effects in breast cancer cells cultured in high serum conditions. In Cell Cycle on 2016 Dec 16 by Audrey Berthe, Stéphane Flament, et al..PMID: 27753533, (2016)

[PMID:27753533](#)

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