

eIF2a(Phospho-Ser51) Antibody

Catalog No: #11279

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

Orders: order@signalwayantibody.comSupport: tech@signalwayantibody.com

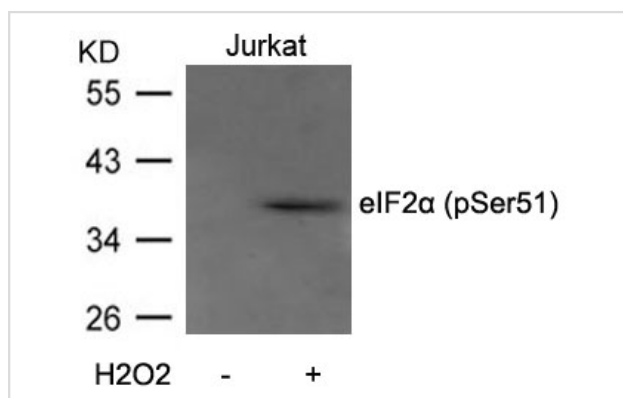
Description

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.
Conjugates	Unconjugated
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	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

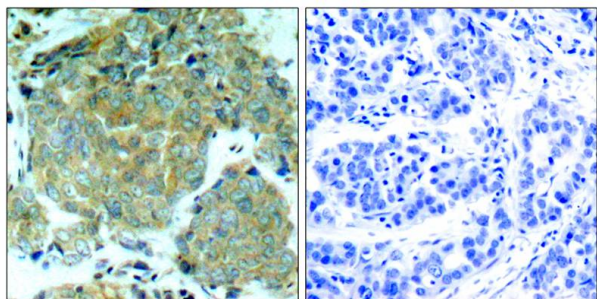
Application Details

IF 1:50-200 WB 1:500 - 1:2000. IHC 1:100 - 1:300.

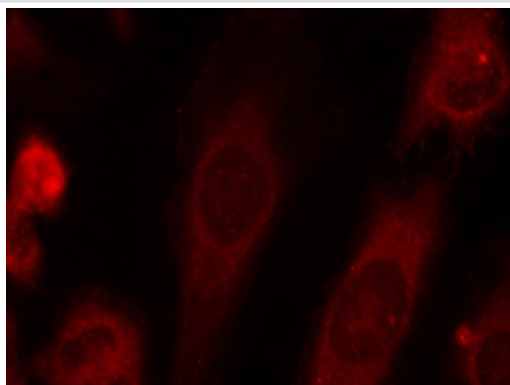
Images



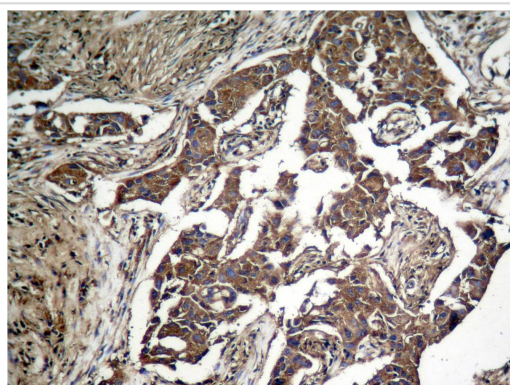
Western blot analysis of extracts from Jurkat cells untreated or treated with H₂O₂ using eIF2a(Phospho-Ser51) Antibody #11279.



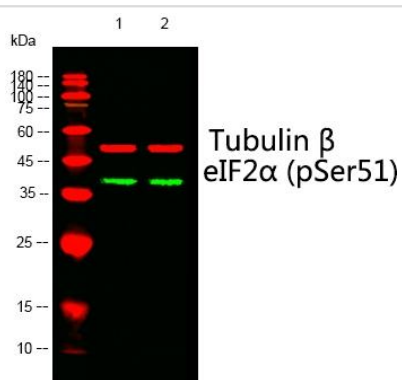
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using eIF2α (Phospho-Ser51) Antibody #11279 (left) or the same antibody preincubated with blocking peptide #51279 (right).



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.



Western blot analysis of lysates from 1) KB, 2) MCF-7 cells, (Green) primary antibody was diluted at 1:1000,

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.

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., θ 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, St θ phane Flament,et al..PMID: 27753533, , (2016)

[PMID:27753533](#)

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 at., Qing Hua Chang Yin ameliorates chronic colitis in mice by inhibiting PERK β ATF4 β CHOP pathway of ER stress and the NF- κ B signalling pathway. In Pharm Biolon 2024 Dec by Liya Liu, Youqin Chen,et al..PMID:39034914, , (2024)

[PMID:39034914](#)

Sungmi Song;Sua Kim;Eslam R. El-Sawy;Claudia Cerella;Barbora Orlikova-Boyer;Gilbert Kirsch;Christo Christov;Mario Dicato;Marc Diederich el at., Anti-Leukemic Properties of Aplysinopsin Derivative EE-84 Alone and Combined to BH3 Mimetic A-1210477., , (2021)

[PMID:34063867](#)

Bishu Wang;Xingguo Tang;Chuntao Xiao;Zhijie Yu;Huaben Bo;Jie Wang;Jinquan Wang el at., Nucleus-targeted ruthenium(II) complex triggers immunogenic cell death and sensitizes melanoma to anti-PD-1 therapy by activating cGAS-STING pathway., , (2025)

[PMID:40022761](#)

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