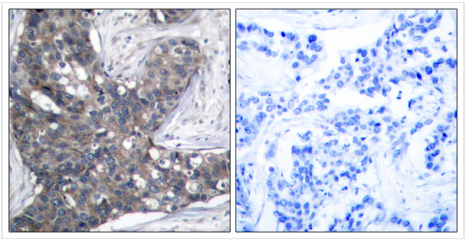
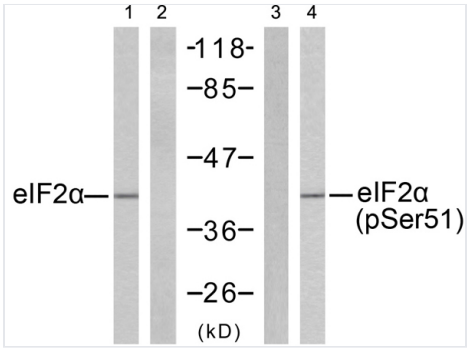
eIF2alpha Antibody

PRODUCT OVERVIEW

Product Name	eIF2alpha, Antibody
Full Product Name	eIF2alpha (Ab-51) Antibody
Product Gene Name	anti-eIF2alpha antibody
Species Reactivity	Human, Mouse, Rat
Form/Format	In phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Specificity	eIF2alpha (Ab-51) antibody detects endogenous levels of total eIF2alpha protein.
Preparation and Storage	Store at-20 degree C for 1 year
OMIM	603907
3D Structure	ModBase 3D Structure for P05198
Immunogen	The antiserum was produced against synthesized non-phosphopeptide derived from humaneIF2alpha around the phosphorylation site of serine 51 (E-L-SP-R-R).
Product Categories/Family for anti-eIF2alpha antibody	Autophagy antibody; Cancer; Cardiovascular; Cell Biology; Epigenetics & Nuclear Signaling; Developmental Biologys; Immunology; Drug Discovery Products; Metabolism; Neuroscience; Signal Transduction; Stem Cells
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-eIF2alpha antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-eIF2alpha antibody	WB: 1:500~1:1000 IHC: 1:50~1:100
Related Product Information for anti-eIF2alpha antibody	MBS856716 is an antibody targeting eIF2alpha. Also known as eIF2alpha (Ab-51) Antibody. Reactive in Human, Mouse, Rat.
Product References and Citations for anti-eIF2alpha antibody	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.
Other Notes	Small volumes of anti-eIF2alpha antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Immunohistochemistry (IHC) of anti-eIF2alpha antibody
Peptide-+ Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using eIF2alpha (Ab-51) antibody.



Western Blot (WB) of anti-eIF2alpha antibody
Western blot analysis of extracts from K562 cells untreated or treated with IFN-alpha (100ng/ml, 20min), using eIF2alpha (Ab-51) antibody and eIF2alpha (phospho-Ser51) antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for eIF2alpha. It may not necessarily be applicable to this product.

NCBI GI #	4758256
NCBI GeneID	1965
NCBI Accession #	NP_004085.1
UniProt Primary Accession #	P05198
UniProt Related Accession #	P05198
GenBank Nucleotide #	NM_004094.4
NCBI Official Full Name	eukaryotic translation initiation factor 2 subunit 1
NCBI Official Synonym Full Names	eukaryotic translation initiation factor 2 subunit alpha
NCBI Official Symbol	EIF2S1
NCBI Official Synonym Symbols	EIF2; EIF-2; EIF2A; EIF-2A; EIF-2alpha
UniProt Protein Name	Eukaryotic translation initiation factor 2 subunit 1
UniProt Synonym Protein Names	Eukaryotic translation initiation factor 2 subunit alpha; eIF-2-alpha; eIF-2A; eIF-2alpha
UniProt Gene Name	EIF2S1
UniProt Synonym Gene Names	EIF2A; eIF-2-alpha; eIF-2A; eIF-2alpha
NCBI Protein Information	eukaryotic translation initiation factor 2 subunit 1
NCBI Summary for eIF2alpha	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]
UniProt Comments for eIF2alpha	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 pre-initiation 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.
Research Articles on eIF2alpha	**1.** eukaryotic elongation factor 2 has a role in proliferation and invasion of lung squamous cell carcinoma

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