

Rabbit eIF2 alpha Polyclonal Antibody | anti-EIF2S1 antibody

eIF2 alpha Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322177	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

eIF2 alpha; Polyclonal Antibody; eIF2 alpha Antibody; EIF 2 alpha; EIF 2; EIF 2A; EIF 2alpha; eIF-2-alpha; eIF-2A; EIF-2alpha; EIF2 alpha; EIF2; EIF2A; EIF2S1; Eukaryotic translation initiation factor 2 subunit 1 alpha 35kDa; Eukaryotic translation initiation factor 2 subunit 1 alpha; Eukaryotic translation initiation factor 2 subunit 1; Eukaryotic translation initiation factor 2 subunit alpha; IF2A_HUMAN; anti-EIF2S1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	eIF2 alpha antibody detects endogenous levels of total eIF2 alpha
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	315
Applicable Applications for anti-EIF2S1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human eIF2 alpha
Subcellular Location	Cytoplasmic Granule. The cytoplasmic granules are stress granules which are a dense aggregation in the cytosol composed of proteins and RNAs that appear when the cell is under stress. Colocalizes with NANOS3 in the stress granules (By similarity).
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA322177 staining K562 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



IHC (Immunohistochemistry)

AAA322177 at 1/100 staining Human liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

MCF-7 and MDA-MB-231 cells were treated with the indicated concentrations of BA for 24h, and the protein levels of ER stress-associated signals were stimulated by BA in a dose-dependent manner, including GRP78, p-PERK/PERK, p-eIF2alpha/eIF2alpha, CHOP, and caspase-12.



WB (Western Blot)

Western blot analysis of eIF2 alpha expression in IFN-alpha treated K562 whole cell lysates. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-EIF2S1 antibody	Description: EIF2A a translation initiation factor that 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. Function: 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. Subunit Structure: Heterotrimer composed of an alpha, a beta and a gamma chain (PubMed:23063529). Component of an EIF2 complex at least composed of CELF1/CUGBP1, CALR, CALR3, EIF2S1, EIF2S2, HSP90B1 and HSPA5. Interaction with METAP2 protects EIF2S1 from inhibitory phosphorylation (By similarity). Interacts with ABCF1 isoform 2 (PubMed:17894550). Associates with ribosomes (PubMed:17894550). Post-translational Modifications: Substrate for at least 4 kinases: EIF2AK1/HRI, EIF2AK2/PKR, EIF2AK3/PERK and EIF2AK4/GCN2. Phosphorylation stabilizes the eIF-2/GDP/eIF-2B complex and prevents GDP/GTP exchange reaction, thus impairing the recycling of eIF-2 between successive rounds of initiation and leading to global inhibition of translation (PubMed:15207627, PubMed:18032499). Phosphorylated; phosphorylation on Ser-52 by the EIF2AK4/GCN2 protein kinase occurs in response to amino acid starvation and UV irradiation (By similarity). Similarity: Belongs to the eIF-2-alpha family.
References	Liu Y, Shen HJ, Wang XQ, Liu HQ, Zheng LY, Luo JD; Journal: J Cell Biochem. EndophilinA2 protects against angiotensin II-induced cardiac hypertrophy by inhibiting angiotensin II type 1 receptor trafficking in neonatal rat cardiomyocytes. Cai Y, Zheng Y, Gu J, Wang S, Wang N, Yang B, Zhang F, Wang D, Fu W, Wang Z; Journal: Cell Death Dis. Betulinic acid chemosensitizes breast cancer by triggering ER stress-mediated apoptosis by directly targeting GRP78.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4758256
NCBI GeneID	1965
NCBI Accession #	NP_004085.1
NCBI GenBank Nucleotide #	NM_004094.4
UniProt Accession #	P05198
Molecular Weight	Observed: 38 kDa Predicted: 37 kDa

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
NCBI Protein Information	eukaryotic translation initiation factor 2 subunit 1
UniProt Protein Name	Eukaryotic translation initiation factor 2 subunit 1
UniProt Gene Name	EIF2S1
UniProt Synonym Gene Names	EIF2A; eIF-2-alpha; eIF-2A; eIF-2alpha

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/eif2-alpha-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/322177>