

Datasheet for 600-101-ML7S**EIF2A Antibody****Overview**

Description:	Anti-EIF2A (GOAT) Antibody - 600-101-ML7S
Item No.:	600-101-ML7S
Size:	25 µL
Applications:	ELISA, IF, WB
Reactivity:	Human, Mouse
Host Species:	Goat

Product Details

Background:	EIF2A (Eukaryotic Translation Initiation Factor 2A) functions in the early steps of protein synthesis of a small number of specific mRNAs. It acts by directing the binding of methionyl-tRNAi to 40S ribosomal subunits. Not be confused with eIF2-alpha (EIF2S1), the alpha subunit of the eIF2 translation initiation complex. The eIF-2 complex binds methionyl-tRNAi to 40S subunits in a GTP-dependent manner, whereas in contrast, EIF2A binds methionyl-tRNAi to 40S subunits in a codon-dependent manner. Goat Anti-EIF2A Antibody is useful for researchers interested in phototoxic stress, translation initiation factor activity, and ribosome binding.
Synonyms:	Goat Anti-Eukaryotic Translation Initiation Factor 2A Antibody, Eukaryotic Translation Initiation Factor 2A 65kDa, 65 KDa Eukaryotic Translation Initiation Factor 2A, EIF-2A, MSTP004, MSTP089, MST089, CDA02
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	EIF2A
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-EIF2A antibody was prepared from whole goat serum produced by repeated immunizations with a synthetic peptide corresponding to a near N-terminal portion of human EIF2A conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This affinity purified antibody is directed against human EIF2A. This product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with the antigen based on 86.7% homology with the immunizing sequence to mouse.
Relevant Links:	• UniProtKB - Q9BY44 • NCBI - NP_001305972.1 • GeneID - 83939

Application Details

Tested Applications:	ELISA, IF, WB
Application Note:	Anti-EIF2A Antibody has been tested in ELISA, WB, and IF. Expect a band at ~65kDa in western blot using appropriate tissues and lysates. Positive control used: HeLa in WB and IF.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:50,000
IF:	5µg/mL
WB:	1:1000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.08 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

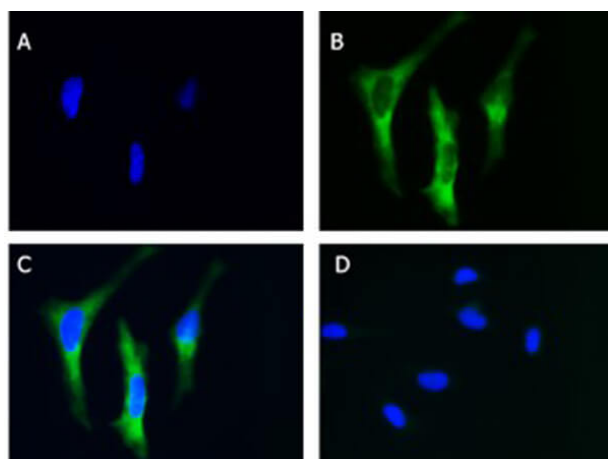
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

Expiration: Expiration date is one (1) year from date of receipt.

Images

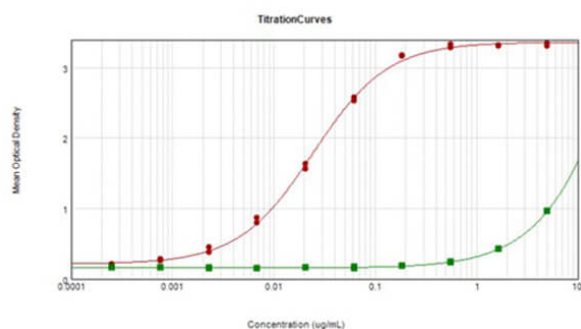


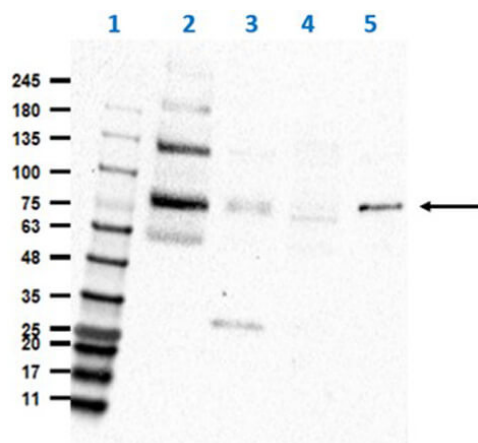
Immunofluorescence Microscopy

Immunofluorescence of Goat Anti-EIF2A Antibody. Cells: HeLa Cells. Fixative: 4% PFA. Permeabilization: 0.3% Triton X-100. Primary Antibody: Anti-EIF2A at 5µg/mL overnight at 2-8°C. Secondary Antibody: Donkey Anti-Goat IgG DyLight™488 (p/n 605-741-125) at 5µg/mL for 1hr at RT. Nuclear Counterstain: DAPI. Staining: (A) DAPI. (B) Anti-EIF2A and DyLight™488. (C) merge of A+B. (D). Secondary only. Localization: cytosol, extracellular >> mitochondria.

ELISA

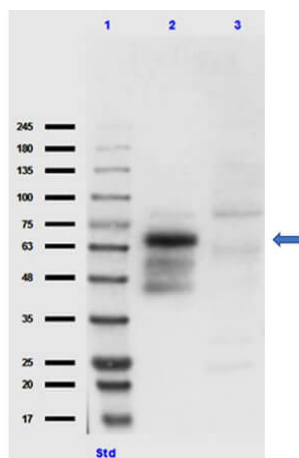
ELISA results of purified Goat Anti-EIF2A Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1µg of conjugate. BSA conjugated EIF2A peptide represented on the red line, BSA conjugated non-specific peptide represented on the green line. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using coating buffer, Donkey Anti-Goat IgG HRP (p/n 605-703-125) and TMBE-1000 substrate.





Western Blot

Western Blot of Goat Anti-EIF2A Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: Daudi whole cell lysate (p/n W09-001-MQ2). Lane 3: MCF-7 whole cell lysate (p/n W09-000-360). Lane 4: NIH-3T3 whole cell lysate (p/n W10-000-358). Lane 5: HeLa whole cell lysate (p/n W09-000-364). Load: 35µg lysate per lane. Primary Antibody: Anti-EIF2A at 5µg/mL overnight at 2-8°C. Secondary Antibody: Donkey Anti-Goat IgG HRP (p/n 605-703-125) at 1:40,000 for 1hr at RT. Block: 5% BLOTTO/TBST (p/n B501-0500). Predicted MW: ~65kDa. Observed MW: ~63, 75, 135 kDa. Exposure time: 35 sec.



Western Blot

Western Blot of Goat Anti-EIF2A Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: EIF2A Human protein overexpressing HEK293 lysate. Lane 3: HEK293 (empty vector) lysate. Primary Antibody: Anti-EIF2A at 1:1000 overnight at 2-8°C. Secondary Antibody: Donkey Anti-Goat IgG HRP (p/n 605-703-125) at 1:70,000 for 1hr at RT. Block: BlockOut Buffer (p/n MB-073). Predicted MW: ~65kDa. Observed MW: ~45, 58, 65 kDa. Exposure time: 15 sec.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.