

ABfinity™ EIF2a [pS51] Recombinant Rabbit Oligoclonal Antibody

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Rev. 1.00

Catalog Number: 710292

Store at 2° to 8°C (short-term), or -20°C (long-term)

Clonality: Oligoclonal
Concentration: 0.5 mg/mL
Quantity: 100 µg
Volume: 200 µL

Host/Class: Rabbit IgG
Reactivity: Human EIF2a [pS51]
Predicted Reactivity: Human

Product Description

EIF2a (eukaryotic initiation factor 2A) is a heterotrimer composed of three subunits (alpha, beta, and gamma). This translation initiation factor drives binding of initiator methionyl-tRNA (met-tRNA_i) to the 40S ribosome in an AUG-dependent manner to form the 43S pre-initiation complex. The polypeptide can be phosphorylated by related protein kinases activated in response to stress. Phosphorylated EIF2A inhibits EIF2B activity and prevents guanine nucleotide exchange.

Product Specifications

Immunogen: Phosphopeptide corresponding to amino acids 48–57 of human EIF2a [pS51]
Alternate Names: EIF-2, EIF2A
Apparent MW: ~36 kDa
Gene ID: 1965
Protein Accession No.: P05198
Sequence Identity: Human
Sequence Homology: Mouse, Rat, Monkey, Rabbit, Horse
Clone/PAD: 10HCLC
Lot: See product label

Product Applications

Application	Species	Test Material	Concentration
Immunocytochemistry	Human	HeLa cells	1–3 µg/mL
Western blotting	Human	K562 cells	2–3 µg/mL
Indirect ELISA	Human	Phosphopeptide	1.5 × 10 ⁻⁴ to 3 µg/mL

Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on product label.

Storage and Handling

Store the antibody at 2° to 8°C for up to 1 month, -20°C for long storage. Avoid repeated freezing and thawing.

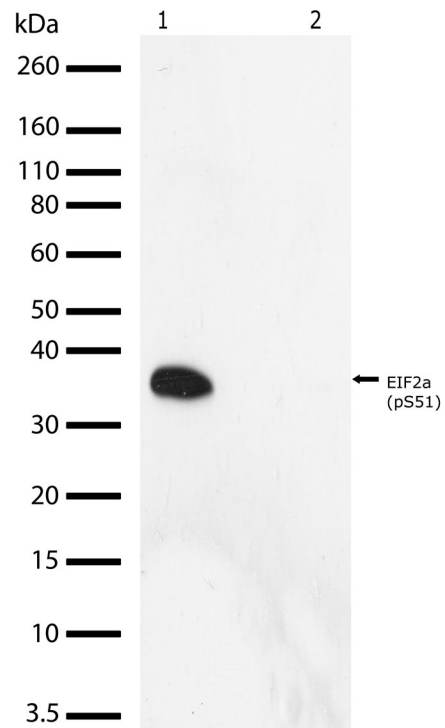


Figure 1 Western blot analysis of ABfinity™ EIF2a [pS51] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710292). Western blot analysis was performed on K562 cells treated with IFN alpha (100 ng/mL) for 20 minutes (lanes 1, 2). Endogenous levels of EIF2a [pS51] was detected at ~36 kDa using ABfinity™ EIF2a [pS51] Recombinant Rabbit Oligoclonal Antibody at a concentration of 2 µg/mL. To confirm oligoclonal specificity, competition was performed with the phosphopeptide to inhibit antibody binding (lane 2). The blot was developed using chemiluminescence (ECL) method.

For research use only. Not for human or animal therapeutic or diagnostic use.

Manufacturing Site • 7335 Executive Way • Frederick • MD 21704 • E-mail: techsupport@lifetech.com

Storage Buffer

Phosphate buffered saline (PBS) with 0.09% sodium azide.

Caution: Sodium azide is an extremely toxic and dangerous compound particularly when combined with acids or metals. Properly dispose of solutions containing sodium azide.

Product Documentation

To obtain a Certificate of Analysis or Safety Data Sheets (SDSs), visit www.lifetechnologies.com/support.

Related Products

Product Name	Quantity	Catalog no.
iBlot® Dry Blotting System	1 unit	IB1001
WesternBreeze® Chromogenic Kit Anti-Rabbit	1 kit	WB7105
WesternBreeze® Chemiluminescent Kit, Anti-Rabbit	1 kit	WB7106
Goat anti-mouse (H+L), HRP conj.	1 mg	G21040
Goat anti-rabbit (H+L), HRP conj.	1 mg	G21234
Goat anti-mouse (H+L), AP conj.	1 mg	G21060
Goat anti-rabbit (H+L), AP conj.	1 mg	G21079
Nitrocellulose, 0.2 µm	20/pack	LC2000

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		In vitro diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

Limited Product Warranty

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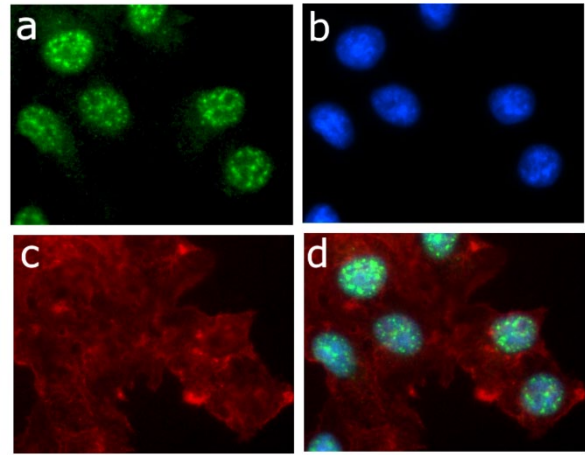


Figure 2 Immunocytochemistry analysis of ABfinity™ EIF2a [pS51] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710292).

Immunocytochemistry analysis of HeLa cells stained with ABfinity™ EIF2a [pS51] Recombinant Rabbit Oligoclonal Antibody, using a: Alexa Fluor® 488 goat anti-rabbit as a secondary antibody (green). b: DAPI stained HeLa nuclei (blue). c: Actin stained with Alexa Fluor® 594 phalloidin (red). d: Composite image of cells showing nuclear localization of phosphorylated EIF2a.

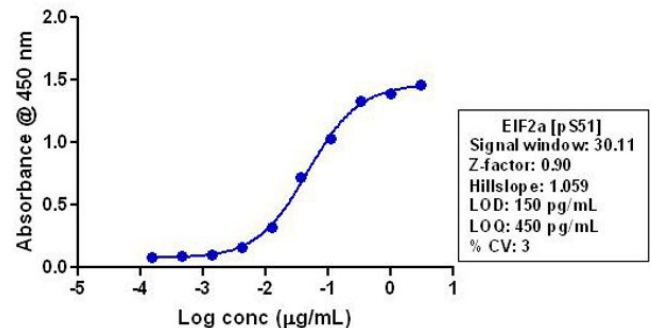


Figure 3 Indirect ELISA of ABfinity™ EIF2a [pS51] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710292).

Indirect ELISA was performed using various dilutions of ABfinity™ EIF2a [pS51] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710292) to detect EIF2a [pS51] phosphopeptide coated onto the plate. A non-linear regression analysis was performed (4 PL) and LOD and LOQ for the antibody was determined.

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