

Datasheet: AHP993

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|----------------------|--------------------------------|
| Description: | RABBIT ANTI 4EBP1 (C-TERMINAL) |
| Specificity: | 4EBP1 (C-TERMINAL) |
| Other names: | eIF-4EBP1 |
| Format: | Purified |
| Product Type: | Polyclonal Antibody |
| Isotype: | Polyclonal IgG |
| Quantity: | 0.1 mg |

Product Details

RRID AB_2097985

Applications This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

| | Yes | No | Not Determined | Suggested Dilution |
|--------------------------|-----|----|----------------|--------------------|
| Flow Cytometry | | | ▪ | |
| Immunohistology - Frozen | | | ▪ | |
| ELISA | | | ▪ | |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | ▪ | | | 2.5 - 5.0ug/ml |

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species Human

Species Cross Reactivity Reacts with: Mouse
N.B. Antibody reactivity and working conditions may vary between species.

Product Form Purified IgG - liquid

Preparation Antisera to human 4EBP1 (CT) were raised by repeated immunisation of rabbits with highly purified antigen.

Purified IgG prepared by affinity chromatography.

Buffer Solution Phosphate buffered saline

Preservative Stabilisers 0.02% Sodium Azide (NaN₃)

Approx. Protein IgG concentration 1.0mg/ml

Concentrations

Immunogen A 14 amino acid peptide located near human 4EBP1 carboxy-terminus.

External Database Links

UniProt:

[Q13541](#) [Related reagents](#)

Entrez Gene:

[1978](#) EIF4EBP1 [Related reagents](#)

Specificity

Rabbit anti 4EBP1 antibody recognizes an epitope within the C-terminal region (CT) of eukaryotic translation initiation factor 4E binding protein 1 (4EBP1), a rapamycin-sensitive downstream target of TOR (Target of rapamycin), and regulatory factor of eukaryotic mRNA translation.

The association between 4EPB1 and eukaryotic translation initiation factor 4E (eIF-4E) inhibits the binding of eIF-4E with p220, thereby preventing the formation of a functional eIF-4E complex, essential for mRNA translation. Phosphorylation of 4EBP1 following stimulation by mitogens such as insulin, results in the release of eIF-4E from 4EBP1, thereby enabling the translation complex to assemble.

Rabbit anti 4EBP1 antibody (AHP993) has been reported as suitable for use in IHC on mouse 3T3 cell cytopins.

Western Blotting

AHP993 detects a band of approximately 20kDa in mouse 3T3 cell lysates. (predicted Mwt. 13kDa).

Further Reading

1. Hara, K. *et al.* (1997) Regulation of eIF-4E BP1 phosphorylation by mTOR. [J Biol Chem. 272 \(42\): 26457-63.](#)
2. Haghghat, A. *et al.* (1995) Repression of cap-dependent translation by 4E-binding protein 1: competition with p220 for binding to eukaryotic initiation factor-4E. [EMBO J. 14 \(22\): 5701-9.](#)

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)

Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)

Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)

Sheep Anti Rabbit IgG (STAR35...) [RPE](#)

Sheep Anti Rabbit IgG (STAR36...) [DyLight@488](#), [DyLight@549](#), [DyLight@649](#),
[DyLight@680](#), [DyLight@800](#)

Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)

Recommended Useful Reagents

[TidyBlot WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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