

**4E-BP1 Rabbit Monoclonal Antibody
Product Data Sheet**

Catalog # 1557-1

Clone ID: Y329 **Lot #:** please refer to vial
Quantity: 100 µl
Type: Rabbit Monoclonal IgG
Species Cross-reactivity: + Human + Mouse + Rat
Applications: + WB + IHC + ICC + Flow Cytometry + IP
Molecular Wt.: 15-20 kDa
UniProt ID: Q13541

Background: 4E-BP1 (eIF4E-binding protein) also known as PHAS, is a 10-12 kDa acidic protein that compete with eIF4G for binding of eIF4E to the mRNA 5' cap structure (1). Binding of the 4E-BPs to eIF4E is reversible and is dependent on the phosphorylation status of 4E-BP. Non-phosphorylated 4E-BP1 will bind strongly to eIF4E while, the phosphorylated form will no (2)t. Akt, TOR, MAP kinase, S6 kinase, and Cdc2 are known kinases capable of inactivating 4E-BP1 binding to eIF4E by phosphorylating either threonines 35, 45, 69 or serine 64. Although, not all phosphorylation events equally block the 4EBP1-eIF4E interaction (3-4)

Specificity: A synthetic peptide corresponding to residues near the N-term of human4E-BP1 was used as immunogen.

Storage Conditions: Store at -20 °C. Buffer: 50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% BSA. Stable for 12 months from date of receipt.

Recommended Dilutions:

WB: 1:500 - 1000
IHC: 1:100-250
ICC: 1:100-250
Flow Cytometry: 1: 20
IP: 1:50

Background References:

1. Pause, A., G.J. Belsham, A.-C. Gingras, O. Donzé, T.A. Lin, J.C. Lawrence, Jr., and N. Sonenberg. 1994. Nature 371: 762-767
2. Gingras, A.-C., S.G. Kennedy, M.A. O'Leary, N. Sonenberg, and N. Hay. 1998. Genes & Dev. 12: 502-513
3. Iritani, B. M., and Eisenman, R. N. (1999) Proc. Natl. Acad. Sci. U. S. A. 96, 13180-13185
4. Trumpp, A., Refaeli, Y., Oskarsson, T., Gasser, S., Murphy, M., Martin, G. R., and Bishop, J. M. (2001) Nature 414, 768-773

Product QC'd by: _____

kDa

50-
37-
25-
20-
15-



Fig 1. Western blot analysis on 293 cell lysate using anti-4E-BP1 RabMAb (cat. # 1557-1), dilution 1:10,000.

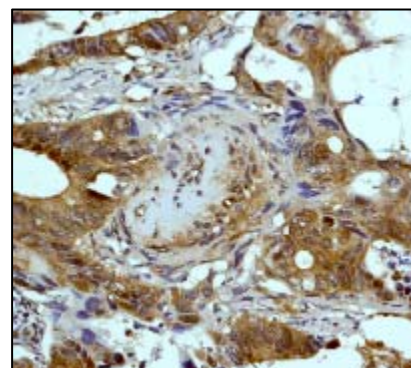


Fig 2. Immunohistochemical analysis of paraffin-embedded human colon carcinoma using anti-4E-BP1 RabMAb (cat. # 1557-1).

For research use only. Not for use in diagnostic or therapeutic applications.

This product was manufactured under U.S. Patent No. 5,675,063. For a complete list of protocols and available related products, please visit www.epitomics.com.

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