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# EIF4E2 Rabbit pAb

Catalog # AP99288

## Product Information

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| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | O60573 |
| **Other Accession** | O60573 |
| **Reactivity** | Mouse |
| **Predicted** | Rat, Pig, Human, Dog, Horse, Sheep |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 28362 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human EIF4EL3 |
| **Epitope Specificity** | 21-120/245 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Belongs to the eukaryotic initiation factor 4E family. |
| **Post-translational modifications** | Ubiquitinated by ARIH1, leading to its degradation by the proteasome. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | The initiation of protein synthesis in eukaryotic cells is regulated by interactions between protein initiation factors and RNA molecules. The eukaryotic initiation factor 4E family (eIF4E) is comprised of three proteins that are involved in the early initiation of protein synthesis. eIF4E2 (eukaryotic translation initiation factor 4E family member 2), also known as 4EHP, IF4e, 4E-LP or EIF4EL3, is a ubiquitously expressed 245 amino acid protein. During early translation events, eIF4E2 recognizes and binds the 7-methylguanosine-containing mRNA cap (a cotranscriptionally added structure that conveys mRNA stability and allows for efficient RNA processing), thus initiating the unwinding of mRNA secondary structures and facilitating mRNA-ribosome binding. eIF4E2 competes with eIF4E (member 1) for cap binding and, upon modification by the ubiquitin-like protein ISG15 (Interferon-induced 15 kDa protein), exhibits increased mRNA cap affinity. |

## Additional Information

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| **Gene ID** | 9470 |
| **Other Names** | IF4E2_HUMAN; EIF4E2; eIF-4E type 2; eIF4E type 2; Eukaryotic translation initiation factor 4E homologous protein; Eukaryotic translation initiation factor 4E-like 3; eIF4E-like protein 4E-LP; mRNA cap-binding protein 4EHP (h4EHP); mRNA cap-binding protein type 3; EIF4EL3; eukaryotic translation initiation factor 4E family member 2 |

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| **Dilution** | IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | EIF4E2 {ECO:0000303\|PubMed:15153109, ECO:0000312\|HGNC:HGNC:3293} |
| **Function** | Recognizes and binds the 7-methylguanosine-containing mRNA cap during an early step in the initiation. Acts as a repressor of translation initiation (PubMed:17368478, PubMed:22751931, PubMed:25624349, PubMed:33581076, PubMed:9582349). In contrast to EIF4E, it is unable to bind eIF4G (EIF4G1, EIF4G2 or EIF4G3), suggesting that it acts by competing with EIF4E and block assembly of eIF4F at the cap (By similarity). In P-bodies, component of a complex that promotes miRNA-mediated translational repression (PubMed:28487484). Involved in virus-induced host response by mediating miRNA MIR34A-induced translational silencing which controls IFNB1 production by a negative feedback mechanism (PubMed:28487484, PubMed:33581076). |
| **Cellular Location** | Cytoplasm. Cytoplasm, P-body |

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