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eIF3B Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55618

Specification

eIF3B Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC, E**
Primary Accession	P55884
Reactivity	**Rat, Dog, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**92 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human eIF3B**
Epitope Specificity	**701-814/814**
Isotype	**IgG**
Purity affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Cytoplasm.**
SIMILARITY	**Belongs to the eIF-3 subunit B family. Contains 1 RRM (RNA recognition motif) domain. Contains 5 WD repeats.**
SUBUNIT	**Component of the eukaryotic translation initiation factor 3 (eIF-3) complex, which is composed of 13 subunits: EIF3A, EIF3B, EIF3C, EIF3D, EIF3E, EIF3F, EIF3G, EIF3H, EIF3I, EIF3J, EIF3K, EIF3L and EIF3M. The eIF-3 complex appears to include 3 stable modules: module A is composed of EIF3A, EIF3B, EIF3G and EIF3I; module B is composed of EIF3F, EIF3H, and EIF3M; and module C is composed of EIF3C, EIF3D, EIF3E, EIF3K and EIF3L. EIF3C of module C binds EIF3B of module A and EIF3H of module B, thereby linking the three modules. EIF3J is a labile subunit that binds to the eIF-3 complex via EIF3B. The eIF-3 complex interacts with RPS6KB1 under conditions of nutrient depletion. Mitogenic stimulation leads to binding and activation of a complex composed of MTOR and RPTOR, leading to phosphorylation and release of RPS6KB1 and binding of EIF4B to eIF-3. Also interacts with UPF2.**
Post-translational modifications	**Phosphorylated. Phosphorylation is enhanced upon serum stimulation.**
Important Note	**This product as supplied is intended for**

research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions
eIF3b expression relates to human bladder and prostate cancer prognosis, is required for tumor growth, and thus a candidate therapeutic target.The initiation of protein synthesis in eukaryotic cells is regulated by interactions between protein initiation factors and RNA molecules. Association of eIF3 proteins with the 40S ribosomal subunit stabilizes eIF2-GTP-Met-tRNAiMet complex association and mRNA binding, and promotes dissociation of 80S ribosomes into 40S and 60S subunits, thereby promoting the assembly of the pre-initiation complex. Overexpression of eIF3 proteins is common in several cancers, suggesting a role for eIF3 proteins in tumorigenesis.

eIF3B Polyclonal Antibody - Additional Information

Gene ID 8662

Other Names
Eukaryotic translation initiation factor 3 subunit B {ECO:0000255|HAMAP-Rule:MF_03001}, eIF3b {ECO:0000255|HAMAP-Rule:MF_03001}, Eukaryotic translation initiation factor 3 subunit 9 {ECO:0000255|HAMAP-Rule:MF_03001}, Prt1 homolog, hPrt1, eIF-3-eta {ECO:0000255|HAMAP-Rule:MF_03001}, eIF3 p110 {ECO:0000255|HAMAP-Rule:MF_03001}, eIF3 p116, EIF3B {ECO:0000255|HAMAP-Rule:MF_03001}

Dilution
IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Format
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage
Store at -20 ℃ 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 ℃.

eIF3B Polyclonal Antibody - Protein Information

Name EIF3B {ECO:0000255|HAMAP-Rule:MF_03001}

Function
RNA-binding component of the eukaryotic translation initiation factor 3 (eIF-3) complex, which is required for several steps in the initiation of protein synthesis (PubMed:17581632, PubMed:25849773, PubMed:27462815, PubMed:9388245). The eIF-3 complex associates with the 40S ribosome and facilitates the recruitment of eIF-1, eIF-1A, eIF-2:GTP:methionyl-tRNAi and eIF-5 to form the 43S pre- initiation complex (43S PIC). The eIF-3 complex stimulates mRNA recruitment to the 43S PIC and scanning of the mRNA for AUG recognition. The eIF-3 complex is also required for disassembly and recycling of post-termination ribosomal complexes and subsequently prevents premature joining of the 40S and 60S ribosomal subunits prior to initiation (PubMed:17581632, PubMed:<a href="http://www.uniprot.org/citations/9388245"

target="_blank">9388245). The eIF-3 complex specifically targets and initiates translation of a subset of mRNAs involved in cell proliferation, including cell cycling, differentiation and apoptosis, and uses different modes of RNA stem-loop binding to exert either translational activation or repression (PubMed:25849773).

Cellular Location
Cytoplasm {ECO:0000255|HAMAP-Rule:MF_03001}. Cytoplasm, Stress granule. Note=Localizes to stress granules following cellular stress

eIF3B Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

eIF3B Polyclonal Antibody - Images