BOSTER BIOLOGICAL TECHNOLOGY
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Anti-EIF1 Antibody Picoband®

Catalog Number: A04125-1

About EIF1

Eukaryotic translation initiation factor 1 (eIF1) is a protein that in humans is encoded by the EIF1 gene. It is related to yeast SUI1. In mammalian cells, translation is controlled at the level of polypeptide chain initiation by initiation factors. Eukaryotic translation initiation factor 1 (eIF1) is crucial for the scanning process in vitro. During the scanning process, eIF1 is a component of a complex involved in recognition of the initiator codon. Translation is also initiated by the role of eIF1 in regulating the activity of ribosomal subunits 43S, 48S and 40S. eIF1 enables 43S ribosomal complexes to discern between cognate and near-cognate initiation codons, sensing the nucleotide content of initiation codons. It is also a promotor, along with eukar-yotic translation initiation factor 1A (eIF1A), for assembly of 48S ribosomal complexes at the initiation codon of a conventional capped mRNA. In addition, eIF1 and eIF1A, together with eukaryotic translation initiation factor 5 (eIF5), function in the formation of stable 40S ribosomal preinitiation complexes.

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Overview

Product Name	Anti-EIF1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-EIF1 Antibody Picoband® catalog # A04125-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P41567

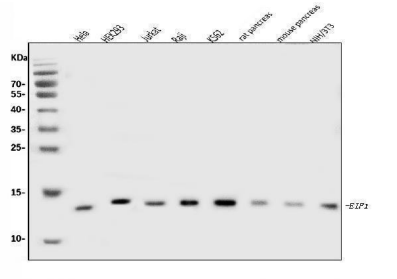
Technical Details

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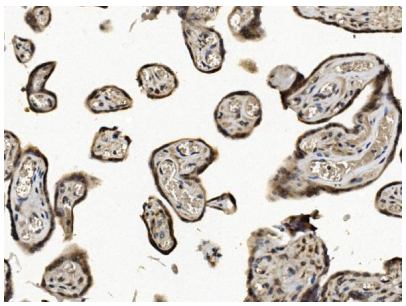
Immunogen	E.coli-derived human EIF1 recombinant protein (Position: S2-D10^{6}).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^{6} cells, Human ELISA, 0.1-0.5 ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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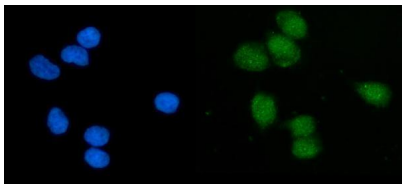
Anti-EIF1 Antibody Picoband® (A04125-1) Images



Western blot analysis of EIF1 using anti-EIF1 antibody (A04125-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human HEK293 whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: human Raji whole cell lysates, Lane 5: human K562 whole cell lysates, Lane 7: rat pancreas tissue lysates, Lane 8: mouse pancreas tissue lysates, Lane 9: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-EIF1 antigen affinity purified polyclonal antibody (Catalog # A04125-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for EIF1 at approximately 13 kDa. The expected band size for EIF1 is at 13 kDa.



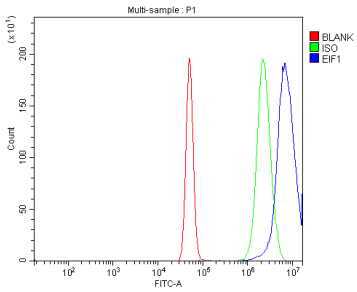
IHC analysis of EIF1 using anti-EIF1 antibody (A04125-1). EIF1 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-EIF1 Antibody (A04125-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IF analysis of EIF1 using anti-EIF1 antibody (A04125-1). EIF1 was detected in an immunocytochemical section of T-47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-EIF1 Antibody (A04125-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Flow Cytometry analysis of A431 cells using anti-EIF1 antibody (A04125-1). Overlay histogram showing A431 cells

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stained with A04125-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-EIF1 Antibody (A04125-1, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-EIF1 Antibody

For Research Use Only. Not for use in diagnostic procedures.