

Anti-TFEC Antibody Picoband®

Catalog Number: A07841-3

About TFEC

This gene encodes a member of the microphthalmia (MiT) family of basic helix-loop-helix leucine zipper transcription factors. MiT transcription factors regulate the expression of target genes by binding to E-box recognition sequences as homo- or heterodimers, and play roles in multiple cellular processes including survival, growth and differentiation. The encoded protein is a transcriptional activator of the nonmuscle myosin II heavy chain-A gene, and may also co-regulate target genes in osteoclasts as a heterodimer with microphthalmia-associated transcription factor. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene.

Overview

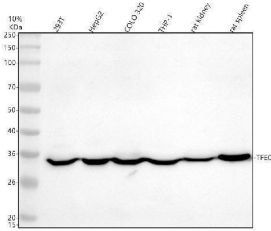
Product Name	Anti-TFEC Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-TFEC Antibody Picoband® catalog # A07841-3. Tested in WB, ICC, IF, Flow Cytometry, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
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	O14948

Technical Details

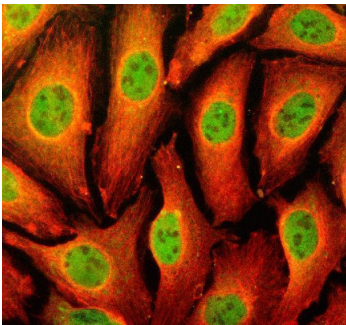
Immunogen	E.coli-derived human TFEC recombinant protein (Position: Q27-D311).
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml



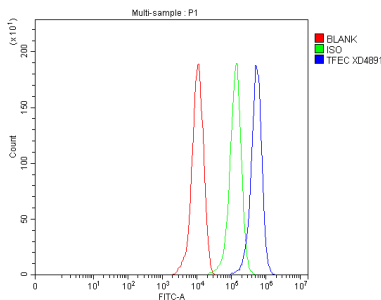
Anti-TFEC Antibody Picoband® (A07841-3) Images



Western blot analysis of TFEC using anti-TFEC antibody (A07841-3). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human 293T whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human COLO-320 whole cell lysates, Lane 4: human THP-1 whole cell lysates, Lane 5: rat kidney tissue lysates, Lane 6: rat spleen tissue 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-TFEC antigen affinity purified polyclonal antibody (A07841-3) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for TFEC at approximately 39 kDa. The expected band size for TFEC is at 35 kDa.



IF analysis of TFEC using anti-TFEC antibody (A07841-3) and anti-Beta Tubulin antibody (M01857-3). TFEC was detected in an immunocytochemical section of U2OS 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-TFEC Antibody (A07841-3) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of THP-1 cells using anti-TFEC antibody (A07841-3). Overlay histogram showing THP-1 cells stained with A07841-3 (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-TFEC Antibody (A07841-3, 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.

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Anti-TFEC Antibody

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