

Anti-TFEB Antibody Picoband®

Catalog Number: A00662-2

About TFEB

Transcription factor EB is a protein that in humans is encoded by the TFEB gene. TFEB is a master gene for lysosomal biogenesis. It encodes a transcription factor that coordinates expression of lysosomal hydrolases, membrane proteins and genes involved in autophagy. Upon nutrient depletion and under aberrant lysosomal storage conditions such as in lysosomal storage diseases, TFEB translocates from the cytoplasm to the nucleus, resulting in the activation of its target genes. TFEB overexpression in cultured cells induces lysosomal biogenesis, exocytosis and autophagy. Viral-mediated TFEB overexpression in cellular and mouse models of lysosomal storage disorders and in common neurodegenerative diseases such as Huntington, Parkinson and Alzheimer diseases, resulted in intracellular clearance of accumulating molecules and rescue of disease phenotypes. TFEB is activated by PGC1-alpha and promotes reduction of htt aggregation and neurotoxicity in a mouse model of Huntington disease. TFEB overexpression has been found in patients with renal cell carcinoma and pancreatic cancer and was shown to promote tumorigenesis via induction of various oncogenic signals.

Overview

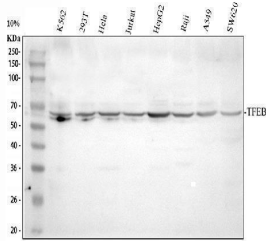
Product Name	Anti-TFEB Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-TFEB Antibody Picoband® catalog # A00662-2. Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	Store 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 freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P19484

Technical Details

Immunogen	E.coli-derived human TFEB recombinant protein (Position: E68-L350).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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, 0.25-0.5ug/ml, Human, Mouse, Rat ELISA, 0.1-0.5ug/ml, -

Anti-TFEB Antibody Picoband® (A00662-2) Images



Western blot analysis of TFEB using anti-TFEB antibody (A00662-2). 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 K562 whole cell lysates, Lane 2: human 293T whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human Jurkat whole cell lysates, Lane 5: human HepG2 whole cell lysates, Lane 6: human Raji whole cell lysates, Lane 7: human A549 whole cell lysates, Lane 8: human SW620 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-TFEB antigen affinity purified polyclonal antibody (Catalog # A00662-2) 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 TFEB at approximately 65 kDa. The expected band size for TFEB is at 53 kDa.

1 Publications Citing This Product

1. PubMed ID: 10.3389/fphar.2021.648107, Curcumin Derivative Cur20 Attenuated Cerebral Ischemic Injury by Antioxidant Effect and HIF-1alpha/VEGF/TFEB-Activated Angiogenesis

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Anti-TFEB Antibody

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