

## Anti-OGFOD3 Antibody Picoband®

Catalog Number: A15361-1

### About OGFOD3

OGFOD3 (2-oxoglutarate and iron-dependent oxygenase domain-containing protein 3) is a protein involved in the hydroxylation of transfer RNA (tRNA), specifically targeting tRNA-hypoxanthine modification. This process is crucial for maintaining accurate translation and protein synthesis in cells. OGFOD3 belongs to the family of 2-oxoglutarate (2OG)-dependent oxygenases, which require iron and 2OG as cofactors to catalyze various oxidative reactions. Its role highlights the importance of tRNA modifications in cellular physiology, potentially influencing gene expression and protein function regulation.

### Overview

Product Name	Anti-OGFOD3 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-OGFOD3 Antibody Picoband® catalog # A15361-1. Tested in WB, IHC, ICC/IF, FCM, 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, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
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	Q6PK18

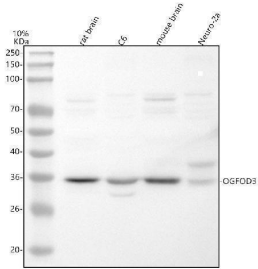
### Technical Details

Immunogen	E.coli-derived human OGFOD3 recombinant protein (Position: D67-H311). Human OGFOD3 shares 92.2% and 90.6% amino acid (aa) sequence identity with mouse and rat OGFOD3, respectively.
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 ICC.
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.

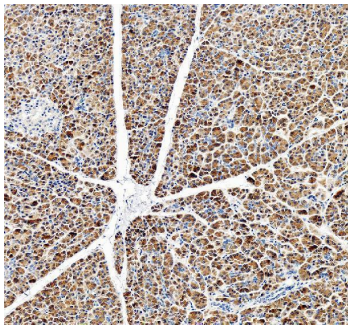
Suggested Dilutions

Western blot, 0.25-0.5 ug/ml, Mouse, Rat  
Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human  
Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human  
Flow Cytometry (Fixed), 1-3 ug/1x10<sup>6</sup> cells, Human  
ELISA, 0.1-0.5 ug/ml, -

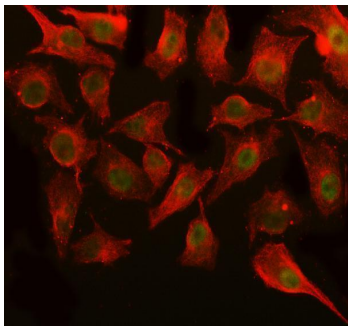
## Anti-OGFOD3 Antibody Picoband® (A15361-1) Images



Western blot analysis of OGFOD3 using anti-OGFOD3 antibody (A15361-1). 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: rat brain tissue lysates, Lane 2: rat C6 whole cell lysates, Lane 3: mouse brain tissue lysates, Lane 4: mouse Neuro-2a 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-OGFOD3 antigen affinity purified polyclonal antibody (Catalog # A15361-1) 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 OGFOD3 at approximately 36 kDa. The expected band size for OGFOD3 is at 36 kDa.

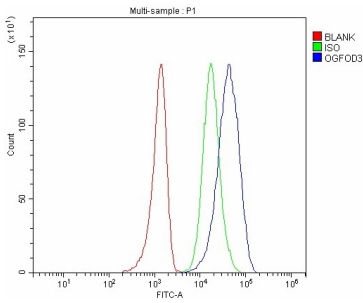


IHC analysis of OGFOD3 using anti-OGFOD3 antibody (A15361-1). OGFOD3 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-OGFOD3 Antibody (A15361-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

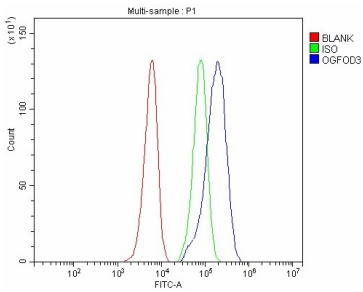


IF analysis of OGFOD3 using anti-OGFOD3 antibody (A15361-1) and anti-Beta Tubulin antibody (M01857-3). OGFOD3 was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-OGFOD3 Antibody (A15361-1) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and DyLight®594 Conjugated Goat Anti-Mouse IgG (BA1141) 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 MOLT-4 cells using anti-OGFOD3 antibody (A15361-1). Overlay histogram showing MOLT-4



cells stained with A15361-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-OGFOD3 Antibody (A15361-1, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of SiHa cells using anti-OGFOD3 antibody (A15361-1). Overlay histogram showing SiHa cells stained with A15361-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-OGFOD3 Antibody (A15361-1, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) 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-OGFOD3 Antibody

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