

Anti-Fibroblast growth factor 21 FGF21 Antibody

Catalog Number: PA1673

About FGF21

FGF21 (Fibroblast growth factor 21) is a protein that in humans is encoded by the FGF21 gene, which is also a member of the fibroblast growth factor (FGF) family. The FGF21 gene is mapped on 19q13.33. Using RT-PCR, Fgf21 was expressed in several types of adipose tissue in mice, including subcutaneous and epididymal fat pads and brown adipose tissue. The level of Fgf21 expression in adipose tissue was comparable to that in liver. FGF21 stimulates glucose uptake in adipocytes but not in other cell types. This effect is additive to the activity of insulin. FGF21 treatment of adipocytes is associated with phosphorylation of FRS2, a protein linking FGF receptors to the Ras/MAP kinase pathway. FGF21 also protects animals from diet-induced obesity when overexpressed in transgenic mice and lowers blood glucose and triglyceride levels when administered to diabetic rodents. Changes in Fgf21 expression due to suckling or nutritional manipulations were associated with changes in circulating free fatty acid and ketone body levels. In differentiated mouse brown adipocytes in culture, Fgf21 treatment increased the expression of thermogenic genes, caused higher total and uncoupled respiration, and enhanced glucose oxidation.

Overview

Product Name	Anti-Fibroblast growth factor 21 FGF21 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Fibroblast growth factor 21 FGF21 Antibody catalog # PA1673. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
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	Q9NSA1

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human FGF21, different from the related rat and mouse sequences by two amino acids.
Predicted Reactive Species	Bovine
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat</p>

Anti-Fibroblast growth factor 21 FGF21 Antibody (PA1673) Images

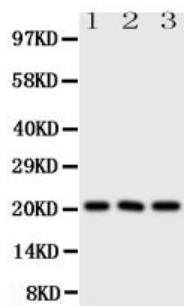


Figure 1. Western blot analysis of FGF21 using anti-FGF21 antibody (PA1673).

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 50ug of sample under reducing conditions.

Lane 1: A549 Whole Cell Lysate,

Lane 2: A431 Whole Cell Lysate,

Lane 3: HEPA Whole Cell Lysate.

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-FGF21 antigen affinity purified polyclonal antibody (Catalog # PA1673) 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 1:10000 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 FGF21 at approximately 21KD. The expected band size for FGF21 is at 21KD.

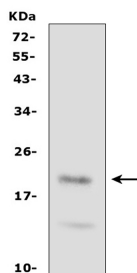


Figure 2. Western blot analysis of FGF21 using anti-FGF21 antibody (PA1673).

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 50ug of sample under reducing conditions.

Lane 1: rat spleen tissue Lysate.

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-FGF21 antigen affinity purified polyclonal antibody (Catalog # PA1673) 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 1:10000 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 FGF21 at approximately 21KD. The expected band size for FGF21 is at 21KD.

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