

Anti-HNF-4-alpha Antibody Picoband® (monoclonal, 6C8E9)

Catalog Number: M00389-2

About HNF4A

Hepatocyte nuclear factor 4 alpha (HNF4A), also known as NR2A1, is a nuclear receptor that in humans is encoded by the HNF4A gene. It is mapped to 20q13.12. HNF4A is a nuclear transcription factor that binds DNA as a homodimer. The encoded protein controls the expression of several genes, including hepatocyte nuclear factor 1 alpha, a transcription factor which regulates the expression of several hepatic genes. This gene plays a role in development of the liver, kidney, and intestines. HNF4A is required for the PXR and CAR-mediated transcriptional activation of CYP3A4. This gene also plays a pivotal role in the expression and synthesis of SHBG, an important glycoprotein made primarily in the liver, which in addition to lowering insulin-resistance also serves in reducing levels of free Oestrogen as-well as prolonging the half-life of Testosterone.

Overview

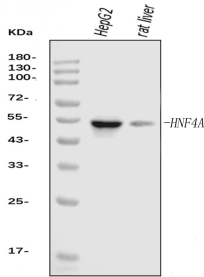
Product Name	Anti-HNF-4-alpha Antibody Picoband® (monoclonal, 6C8E9)
Reactive Species	Human, Rat
Description	Boster Bio Anti-HNF-4-alpha Antibody Picoband® (monoclonal, 6C8E9) catalog # M00389-2. Tested in IHC, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this is 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	IHC, WB
Clonality	Monoclonal 6C8E9
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 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	Mouse
Uniprot ID	P41235

Technical Details

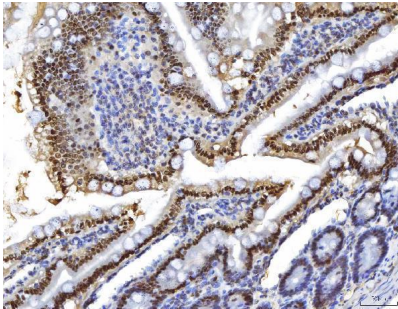
Immunogen	E.coli-derived human HNF-4-alpha recombinant protein (Position: Q164-I474). Human HNF-4-alpha shares 95% and 96% amino acid (aa) sequence identity with mouse and rat HNF-4-alpha, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2a

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, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Rat

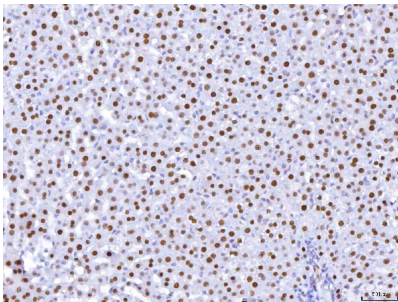
Anti-HNF-4-alpha Antibody Picoband® (monoclonal, 6C8E9) (M00389-2) Images



Western blot analysis of HNF-4-alpha using anti-HNF-4-alpha antibody (M00179-1). 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 HepG2 whole cell lysates, Lane 2: rat liver 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 mouse anti-HNF-4-alpha antigen affinity purified monoclonal antibody (Catalog # M00179-1) 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-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for HNF-4-alpha at approximately 53 kDa. The expected band size for HNF-4-alpha is at 53 kDa.



IHC analysis of HNF-4-alpha using anti-HNF-4-alpha antibody (M00389-2). HNF-4-alpha was detected in a paraffin-embedded section of rat colon 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 mouse anti-HNF-4-alpha Antibody (M00389-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.



IHC analysis of HNF-4-alpha using anti-HNF-4-alpha antibody (M00389-2). HNF-4-alpha was detected in a paraffin-embedded section of rat liver 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 mouse anti-HNF-4-alpha Antibody (M00389-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

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