10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Neurofibromin/NF1 Antibody Picoband™ (monoclonal, 4C6F10)

Catalog # ABO15121

Specification

Anti-Neurofibromin/NF1 Antibody Picoband™ (monoclonal, 4C6F10) - Product Information

Application	**WB, IHC, FC**
Primary Accession	P21359
Host	**Mouse**
Isotype	**Mouse IgG2b**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-Neurofibromin/NF1 Antibody Picoband™ (monoclonal, 4C6F10) . Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.

Reconstitution
Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Neurofibromin/NF1 Antibody Picoband™ (monoclonal, 4C6F10) - Additional Information

Gene ID 4763

Other Names
Neurofibromin, Neurofibromatosis-related protein NF-1, Neurofibromin truncated, NF1

Calculated MW
319 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human, Mouse, Rat
 Flow Cytometry, 1-3 µg/1x10^6 cells, Human

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

Immunogen
E.coli-derived human Neurofibromin/NF1 recombinant protein (Position: R160-Q270).

Purification
Immunogen affinity purified.

Storage	**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.**

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Anti-Neurofibromin/NF1 Antibody Picoband™ (monoclonal, 4C6F10) - Protein Information

Name NF1

Function
Stimulates the GTPase activity of Ras. NF1 shows greater affinity for Ras GAP, but lower specific activity. May be a regulator of Ras activity.

Cellular Location
Nucleus. Nucleus, nucleolus. Cell membrane

Tissue Location
Detected in brain, peripheral nerve, lung, colon and muscle.

Anti-Neurofibromin/NF1 Antibody Picoband™ (monoclonal, 4C6F10) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Neurofibromin/NF1 Antibody Picoband™ (monoclonal, 4C6F10) - Images

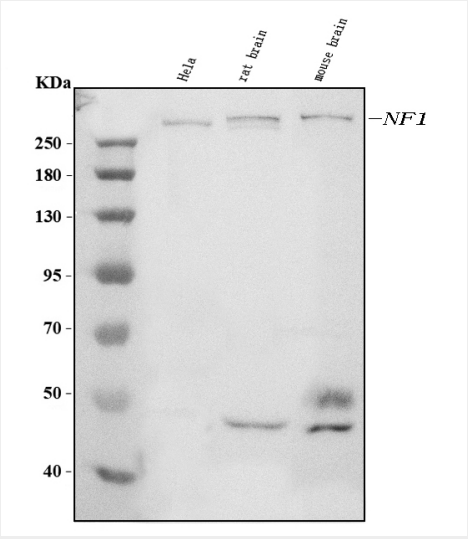

Figure 1. Western blot analysis of Neurofibromin/NF1 using anti-Neurofibromin/NF1 antibody (M00043).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,

Lane 2: rat brain tissue lysates,
Lane 3: mouse brain 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-Neurofibromin/NF1 antigen affinity purified monoclonal antibody (Catalog # M00043) at 0.5 µg/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 Neurofibromin/NF1 at approximately 319 kDa. The expected band size for Neurofibromin/NF1 is at 319 kDa.

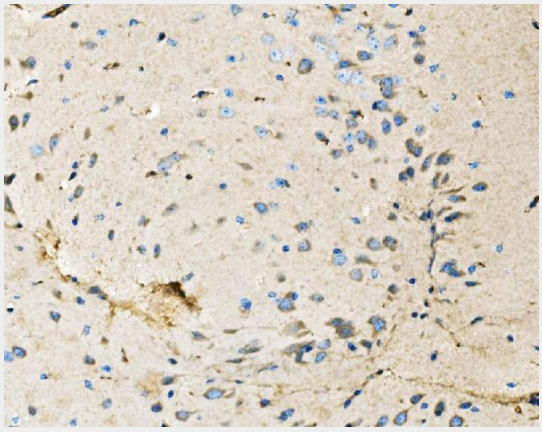

Figure 2. IHC analysis of Neurofibromin/NF1 using anti-Neurofibromin/NF1 antibody (M00043). Neurofibromin/NF1 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Neurofibromin/NF1 Antibody (M00043) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

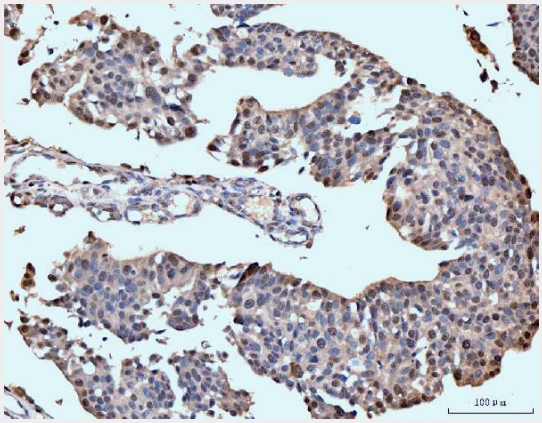

Figure 3. IHC analysis of Neurofibromin/NF1 using anti-Neurofibromin/NF1 antibody (M00043). Neurofibromin/NF1 was detected in a paraffin-embedded section of human bladder epithelial carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Neurofibromin/NF1 Antibody (M00043) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

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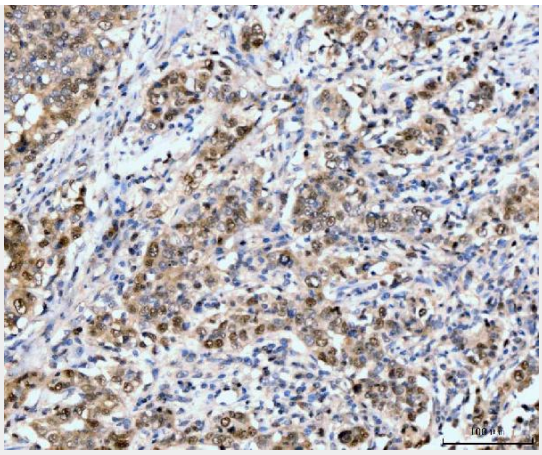

Figure 4. IHC analysis of Neurofibromin/NF1 using anti-Neurofibromin/NF1 antibody (M00043). Neurofibromin/NF1 was detected in a paraffin-embedded section of human metaplasia of squamous cells of the renal pelvis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Neurofibromin/NF1 Antibody (M00043) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

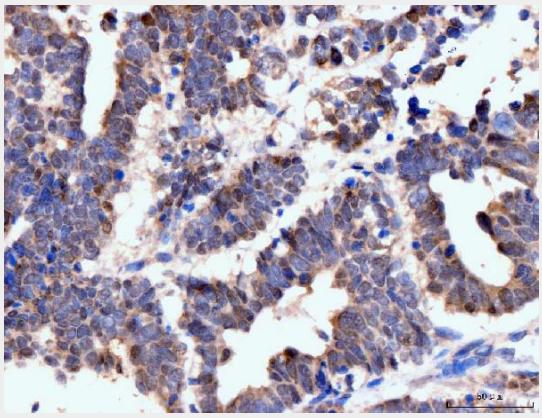

Figure 5. IHC analysis of Neurofibromin/NF1 using anti-Neurofibromin/NF1 antibody (M00043). Neurofibromin/NF1 was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Neurofibromin/NF1 Antibody (M00043) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

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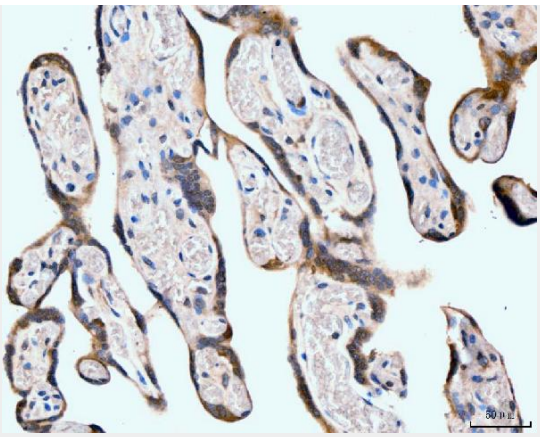

Figure 6. IHC analysis of Neurofibromin/NF1 using anti-Neurofibromin/NF1 antibody (M00043). Neurofibromin/NF1 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Neurofibromin/NF1 Antibody (M00043) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

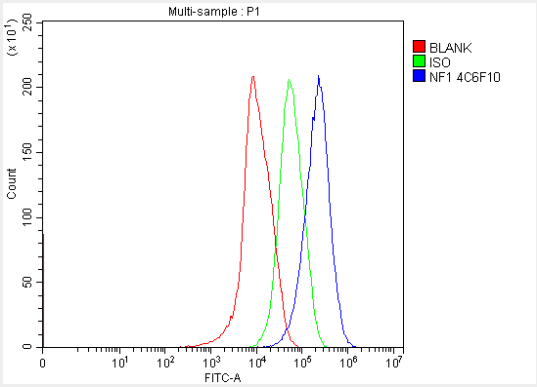

Figure 7. Flow Cytometry analysis of HepG2 cells using anti-Neurofibromin/NF1 antibody (M00043).
Overlay histogram showing HepG2 cells stained with M00043 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Neurofibromin/NF1 Antibody (M00043, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-Neurofibromin/NF1 Antibody Picoband™ (monoclonal, 4C6F10) - Background

Neurofibromin 1 (NF1) is a gene in humans that is located on chromosome 17. This gene product appears to function as a negative regulator of the ras signal transduction pathway. Mutations in this gene have been linked to neurofibromatosis type 1, juvenile myelomonocytic leukemia and Watson syndrome. The mRNA for this gene is subject to RNA editing (CGA>UGA->Arg1306Term) resulting in premature translation termination. Alternatively spliced transcript variants encoding different isoforms have also been described for this gene.