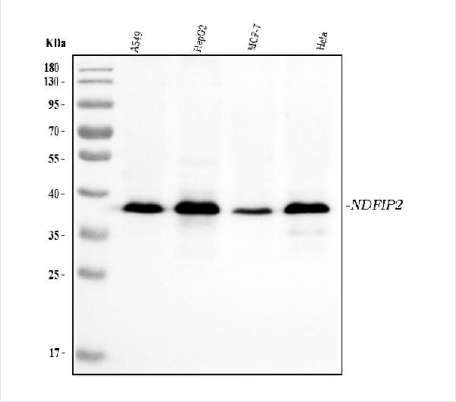
NDFIP2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

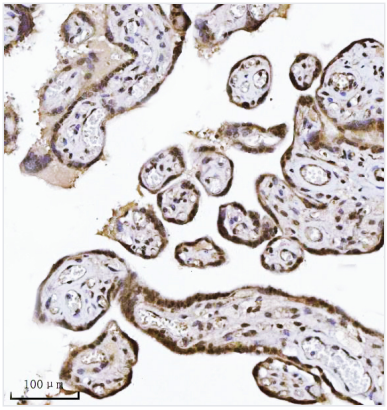
Product Name	NDFIP2, Monoclonal Antibody
Full Product Name	Anti-NDFIP2 Antibody Picoband (monoclonal, 10D6D7)
Product Gene Name	anti-NDFIP2 antibody
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Number	10D6D7
Host	Mouse
Species Reactivity	Human
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (lot specific)
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.
Molecular Weight	36,390 Da
Chromosome Location	Chromosome: 13; NC_000013.10 (80055259..80130212). Location: 13q31.1
OMIM	610041
3D Structure	ModBase 3D Structure for Q9NV92
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	E Coli-derived human NDFIP2 recombinant protein (Position: M16-L336).
Product Categories/Family for anti-NDFIP2 antibody	Primary Antibodies, Mouse Monoclonal Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-NDFIP2 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS)
Application Notes for anti-NDFIP2 antibody	WB: 0.25-0.5 ug/ml, Human IHC-P: 2-5 ug/ml, Human ICC/IF: 5 ug/ml, Human FC/FACS: 1-3 ug/1x10^6 cells, Human Tested Species: In-house tested species with positive results. Enhanced Chemiluminescent Kit with anti- IgG (#MBS176445) for Western blot, and HRP Conjugated anti- IgG Super Vision Assay Kit (#MBS176472) for IHC(P) and ICC.

Related Product Information for anti-NDFIP2 antibody	NEDD4 family-interacting protein 2 is a protein that in humans is encoded by the NDFIP2 gene. The NEDD4 family-interacting protein 1 (NDFIP1) belongs to a small group of evolutionarily conserved proteins with three transmembrane domains and is an integral Golgi membrane protein. It is a potential target for ubiquitination by the Nedd4 family of proteins. NDFIP1 is strongly expressed in surviving neurons following acute cortical brain injury, and overexpression in cultured cortical neurons increased survival following growth factor starvation, suggesting that NDFIP1 may play a role in neuronal survival. NDFIP1 and the related protein NDFIP2 are thought to interact with and regulate multiple components of the EGF and PTEN/Akt signaling pathways. Recent studies suggest that NDFIP1 may also play a role in Th17 differentiation by limiting the production of proinflammatory cytokines.
Other Notes	Small volumes of anti-NDFIP2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for NDFIP2 purchase	MBS1757807 is an antibody targeting NDFIP2. Also known as Anti-NDFIP2 Antibody Picoband (monoclonal, 10D6D7). Reactive in Human. Host: Mouse.



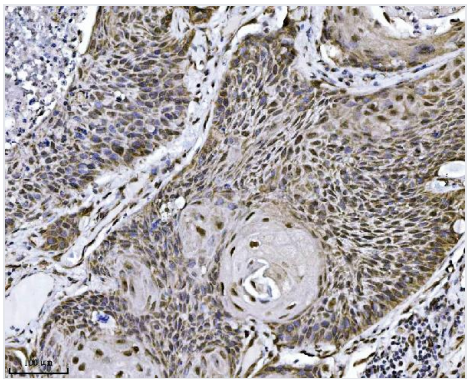
Western Blot (WB) of anti-NDFIP2 antibody

Figure 1. Western blot analysis of NDFIP2 using anti-NDFIP2 antibody (MBS1757807).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 A549 whole cell lysates,Lane 2: human HepG2 whole cell lysates,Lane 3: human MCF-7 whole cell lysates,Lane 4: human Hela 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 mouse anti-NDFIP2 antigen affinity purified monoclonal antibody (#MBS1757807) at 0.5 ug/mL overnight at 4 degree 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 with Tanon 5200 system. A specific band was detected for NDFIP2 at approximately 39 kDa. The expected band size for NDFIP2 is at 36 kDa.



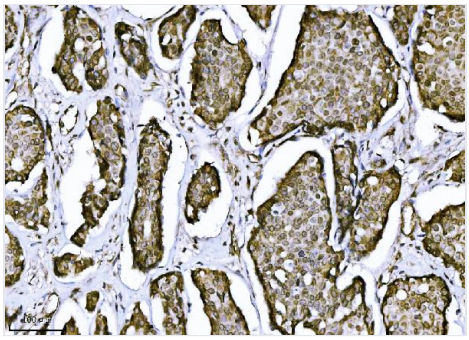
Immunohistochemistry (IHC) of anti-NDFIP2 antibody

Figure 2. IHC analysis of NDFIP2 using anti-NDFIP2 antibody (MBS1757807).NDFIP2 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 ug/ml mouse anti-NDFIP2 Antibody (MBS1757807) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.



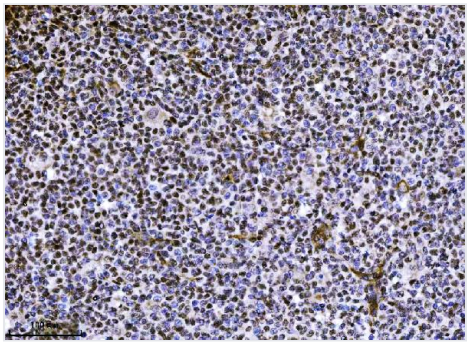
Immunohistochemistry (IHC) of anti-NDFIP2 antibody

Figure 3. IHC analysis of NDFIP2 using anti-NDFIP2 antibody (MBS1757807).NDFIP2 was detected in a paraffin-embedded section of human squamous cell lung 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 ug/ml mouse anti-NDFIP2 Antibody (MBS1757807) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.



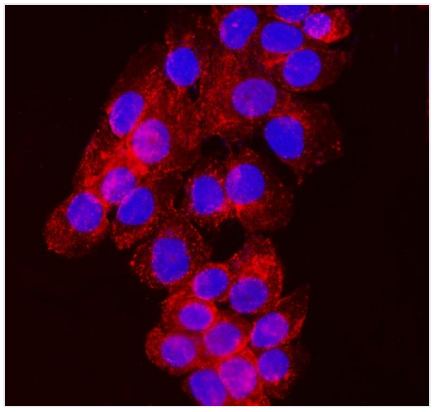
Immunohistochemistry (IHC) of anti-NDFIP2 antibody

Figure 4. IHC analysis of NDFIP2 using anti-NDFIP2 antibody (MBS1757807).NDFIP2 was detected in a paraffin-embedded section of human breast 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 mouse anti-NDFIP2 Antibody (MBS1757807) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.



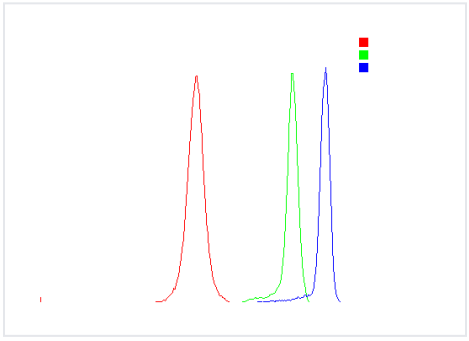
Immunohistochemistry (IHC) of anti-NDFIP2 antibody

Figure 5. IHC analysis of NDFIP2 using anti-NDFIP2 antibody (MBS1757807).NDFIP2 was detected in a paraffin-embedded section of human spleen 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-NDFIP2 Antibody (MBS1757807) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.



Immunofluorescence (IF) of anti-NDFIP2 antibody

Figure 6. IF analysis of NDFIP2 using anti-NDFIP2 antibody (MBS1757807).NDFIP2 was detected in an immunocytochemical section of A431 cells. 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 mouse anti-NDFIP2 Antibody (MBS1757807) overnight at 4 degree C. DyLight594 Conjugated Goat Anti-Mouse IgG (BA1141) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry (FC/FACS) of anti-NDFIP2 antibody

Figure 7. Flow Cytometry analysis of JK cells using anti-NDFIP2 antibody (MBS1757807).Overlay histogram showing JK cells stained with MBS1757807 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-NDFIP2 Antibody (MBS1757807, 1 ug/1x10^6 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-mouse IgG (MBS177407, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NDFIP2. It may not necessarily be applicable to this product.

NCBI GI #	239046743
NCBI GeneID	54602
NCBI Accession #	NP_001154879.1
UniProt Primary Accession #	Q9NV92
UniProt Secondary Accession #	Q7Z2H3; Q7Z428; Q8TAR3; Q9ULQ5
UniProt Related Accession #	Q9NV92
GenBank Nucleotide #	NM_001161407.1
NCBI Official Full Name	NEDD4 family-interacting protein 2 isoform 2
NCBI Official Synonym Full Names	Nedd4 family interacting protein 2
NCBI Official Symbol	NDFIP2
NCBI Official Synonym Symbols	N4WBP5A
UniProt Protein Name	NEDD4 family-interacting protein 2
UniProt Synonym Protein Names	NEDD4 WW domain-binding protein 5A; Putative MAPK-activating protein PM04/PM05/PM06/PM07; Putative NF-kappa-B-activating protein 413
Protein Family	NEDD4 family-interacting protein
UniProt Gene Name	NDFIP2
UniProt Synonym Gene Names	KIAA1165; N4WBP5A
UniProt Entry Name	NFIP2_HUMAN
NCBI Protein Information	NEDD4 family-interacting protein 2; NF-kappa-B-activating protein 413; NEDD4 WW domain-binding protein 5A; putative NF-kappa-B-activating protein 413; MAPK-activating protein PM04 PM05 PM06 PM07; putative MAPK-activating protein PM04/PM05/PM06/PM07

UniProt Comments for NDFIP2	Function: Activates HECT domain-containing E3 ubiquitin-protein ligases, including ITCH, NEDD4, NEDD4L, SMURF2, WWP1 and WWP2, and consequently modulates the stability of their targets. As a result, may control many cellular processes. Recruits ITCH, NEDD4 and SMURF2 to endosomal membranes. May modulate EGFR signaling. Ref.2 Ref.8 Ref.9 Subunit structure: Forms heterodimers with NDFIP1. Interacts with HECT domain-containing E3 ubiquitin-protein ligases, including NEDD4. Interacts with NEDD4L By similarity. Interacts with PTEN. When phosphorylated at Tyr-167, interacts with SRC and LYN SH2 domain. May thus act as a scaffold that recruits SRC to NDFIP1, enhancing NDFIP1 phosphorylation. Interacts with SLC11A2/DMT1. May interact with phosphorylated EGFR. Ref.1 Ref.7 Ref.9 Subcellular location: Endosome membrane; Multi-pass membrane protein. Golgi apparatus membrane. Endosome › multivesicular body membrane Ref.1 Ref.7 Ref.9. Tissue specificity: Expressed in brain, lung, heart, skeletal muscle, kidney, liver and placenta. Ref.1 Induction: By T-cell activation. Ref.1 Domain: The PY (WW-binding) motifs are required for E3 ubiquitin-protein ligase activation and for ubiquitination. Post-translational modification: Ubiquitinated by NEDD4 and ITCH. Also ubiquitinated by NEDD4L. Ubiquitination by NEDD4 or NEDD4L does not affect turnover By similarity. Ref.8Undergoes transient tyrosine-phosphorylation following EGF stimulation, most probably catalyzed by SRC. Also phosphorylated by LYN and FYN. Ref.9 Sequence caution: The sequence AAH21988.1 differs from that shown. Reason: Erroneous initiation. The sequence AAH26126.1 differs from that shown. Reason: Erroneous initiation. The sequence BAA91863.1 differs from that shown. Reason: Erroneous initiation.
Research Articles on NDFIP2	**1.** PTEN/Akt and MAP kinase signaling pathways are regulated by the ubiquitin ligase activators Ndfip1 and Ndfip2
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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Online datasheet: https://www.mybiosource.com/monoclonal-human-antibody/ndfip2/1757807