10320 Camino Santa Fe, Suite G
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Anti-WDR1 Antibody Picoband™ (monoclonal, 5C11C8)

Catalog # ABO16584

Specification

Anti-WDR1 Antibody Picoband™ (monoclonal, 5C11C8) - Product Information

Application	**WB, IHC**
Primary Accession	O75083
Host	**Mouse**
Isotype	**Mouse IgG2b**
Reactivity	**Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-WDR1 Antibody Picoband™ (monoclonal, 5C11C8) . Tested in IHC, WB applications. This antibody reacts with Human, Mouse.

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

Anti-WDR1 Antibody Picoband™ (monoclonal, 5C11C8) - Additional Information

Gene ID 9948

Other Names
WD repeat-containing protein 1, Actin-interacting protein 1, AIP1, NORI-1, WDR1

Calculated MW
66 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human, Mouse
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human

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

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human WDR1, different from the related mouse and rat sequences by one amino acid.

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-WDR1 Antibody Picoband™ (monoclonal, 5C11C8) - Protein Information

Name WDR1

Function
Induces disassembly of actin filaments in conjunction with ADF/cofilin family proteins (PubMed:15629458, PubMed:27557945, PubMed:29751004). Enhances cofilin-mediated actin severing (By similarity). Involved in cytokinesis. Involved in chemotactic cell migration by restricting lamellipodial membrane protrusions (PubMed:18494608). Involved in myocardium sarcomere organization. Required for cardiomyocyte growth and maintenance (By similarity). Involved in megakaryocyte maturation and platelet shedding. Required for the establishment of planar cell polarity (PCP) during follicular epithelium development and for cell shape changes during PCP; the function seems to implicate cooperation with CFL1 and/or DSTN/ADF. Involved in the generation/maintenance of cortical tension (By similarity). Involved in assembly and maintenance of epithelial apical cell junctions and plays a role in the organization of the perijunctional actomyosin belt (PubMed:25792565).

Cellular Location
Cytoplasm. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q5RKI0}. Cell projection, podosome. Cell junction

Tissue Location
Expressed in peripheral blood mononuclear cells (at protein level).

Anti-WDR1 Antibody Picoband™ (monoclonal, 5C11C8) - 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-WDR1 Antibody Picoband™ (monoclonal, 5C11C8) - Images

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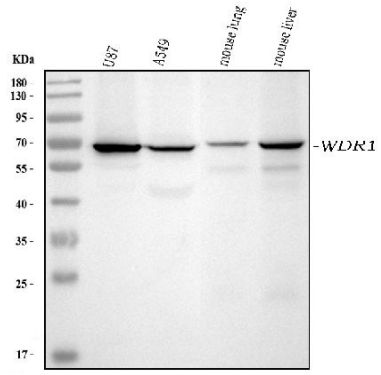

Figure 1. Western blot analysis of WDR1 using anti-WDR1 antibody (M04814-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human U87 whole cell lysates,
Lane 2: human A549 whole cell lysates,
Lane 3: mouse lung tissue lysates,
Lane 4: mouse 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-WDR1 antigen affinity purified monoclonal antibody (Catalog # M04814-1) 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 WDR1 at approximately 66 kDa. The expected band size for WDR1 is at 66 kDa.

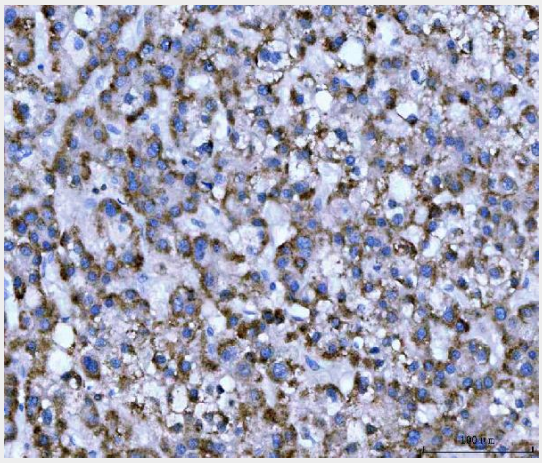

Figure 2. IHC analysis of WDR1 using anti-WDR1 antibody (M04814-1).
WDR1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-WDR1 Antibody (M04814-1) 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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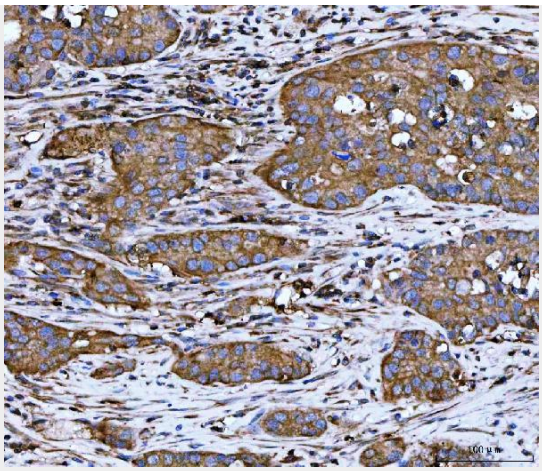

Figure 3. IHC analysis of WDR1 using anti-WDR1 antibody (M04814-1).
WDR1 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-WDR1 Antibody (M04814-1) 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.

Anti-WDR1 Antibody Picoband™ (monoclonal, 5C11C8) - Background

WD repeat-containing protein 1 is a protein that in humans is encoded by the WDR1 gene. It is mapped to 4p16.1. This gene encodes a protein containing 9 WD repeats. WD repeats are approximately 30- to 40-amino acid domains containing several conserved residues, mostly including a trp-asp at the C-terminal end. WD domains are involved in protein-protein interactions. The encoded protein may help induce the disassembly of actin filaments. Two transcript variants encoding different isoforms have been found for this gene.