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Anti-Flotillin 2 Antibody Picoband™ (monoclonal, 4D8A3)

Catalog # ABO16577

Specification

Anti-Flotillin 2 Antibody Picoband™ (monoclonal, 4D8A3) - Product Information

Application	**WB, IHC, IF, ICC**
Primary Accession	Q14254
Host	**Mouse**
Isotype	**Mouse IgG2b**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-Flotillin 2 Antibody Picoband™ (monoclonal, 4D8A3) . Tested in IF, IHC, ICC, 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-Flotillin 2 Antibody Picoband™ (monoclonal, 4D8A3) - Additional Information

Gene ID 2319

Other Names
Flotillin-2, Epidermal surface antigen, ESA, Membrane component chromosome 17 surface marker 1, FLOT2, ESA1, M17S1

Calculated MW
49 kDa KDa

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

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

Immunogen
E.coli-derived human Flotillin 2 recombinant protein (Position: K169-K344). Human Flotillin 2 shares 100% amino acid (aa) sequence identity with both and rat Flotillin 2.

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.

Anti-Flotillin 2 Antibody Picoband™ (monoclonal, 4D8A3) - Protein Information

Name FLOT2

Synonyms ESA1, M17S1

Function
May act as a scaffolding protein within caveolar membranes, functionally participating in formation of caveolae or caveolae-like vesicles. May be involved in epidermal cell adhesion and epidermal structure and function.

Cellular Location
Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Endosome Membrane; Lipid-anchor. Note=Membrane- associated protein of caveolae

Tissue Location
In skin, expressed in epidermis and epidermal appendages but not in dermis. Expressed in all layers of the epidermis except the basal layer. In hair follicles, expressed in the suprabasal layer but not the basal layer. Also expressed in melanoma and carcinoma cell lines, fibroblasts and foreskin melanocytes

Anti-Flotillin 2 Antibody Picoband™ (monoclonal, 4D8A3) - 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-Flotillin 2 Antibody Picoband™ (monoclonal, 4D8A3) - Images

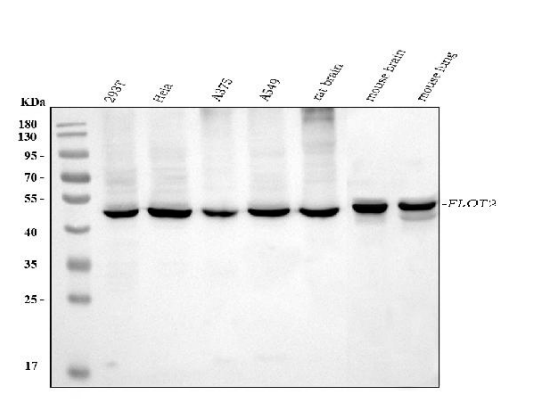

Figure 1. Western blot analysis of Flotillin 2 using anti-Flotillin 2 antibody (M06107-2).

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 293T whole cell lysates,
Lane 2: human Hela whole cell lysates,
Lane 3: human A375 whole cell lysates,
Lane 4: human A549 whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: mouse brain tissue lysates,
Lane 7: mouse lung 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-Flotillin 2 antigen affinity purified monoclonal antibody (Catalog # M06107-2) 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 Flotillin 2 at approximately 49 kDa. The expected band size for Flotillin 2 is at 47 kDa.

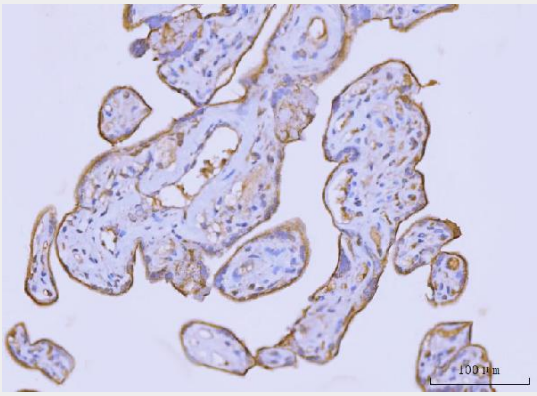

Figure 2. IHC analysis of Flotillin 2 using anti-Flotillin 2 antibody (M06107-2).
Flotillin 2 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Flotillin 2 Antibody (M06107-2) 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.

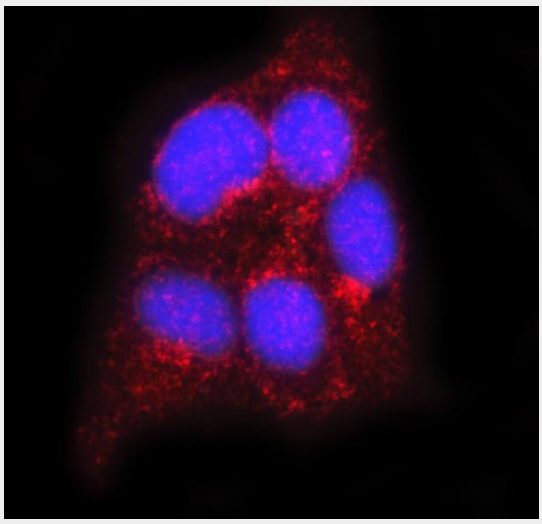

Figure 3. IF analysis of FLOT2 using anti-FLOT2 antibody (M06107-2).
FLOT2 was detected in an immunocytochemical section of SiHa cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 µg/mL mouse anti-FLOT2 Antibody (M06107-2) overnight at 4°C. Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Anti-Flotillin 2 Antibody Picoband™ (monoclonal, 4D8A3) - Background

FLOT2 (Flotillin 2), also known as ESA1 or M17S1, is a protein that in humans is encoded by the FLOT2 gene. Schroeder et al. (1991) isolated a cDNA for an epidermal surface antigen believed to be involved in epidermal cell adhesion. By analysis of a somatic cell hybrid panel and in situ hybridization using the ESA cDNA, the gene was mapped to 17q11-q12 in the region containing the NF1 gene. Bickel et al. (1997) found that Flot2 consistently copurifies with Flot1 and with caveolin-1 in the purification of caveolin-rich membranes. Using a quantitative proteomic analysis of cultured neuronal stem cells, Li et al. (2012) found that palmitoylation and oligomerization of flotillin-2 was abolished in homozygous Dhhc5 mutant neuronal stem cells. The absolute amount of flotillin-2 was not changed in Dhhc5 mutant neurons.