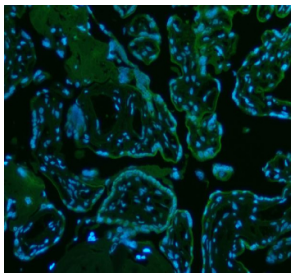
MICALL1 Antibody / MICAL-like 1 (FY12556)

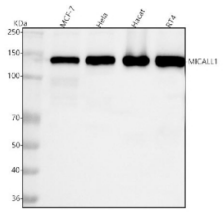
Catalog No.	Formulation	Size
FY12556	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

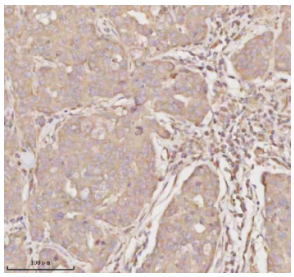
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8N3F8
Localization	Cytoplasm
Applications	Western Blot: 0.25-0.5ug/ml Immunohistochemistry: 2-5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This MICALL1 antibody is available for research use only.



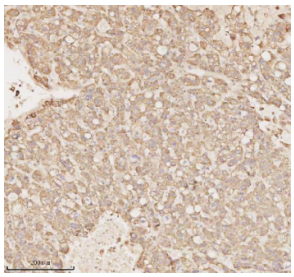
Immunofluorescent staining of FFPE human placental tissue with MICALL1 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH8 EDTA buffer for 20 min.



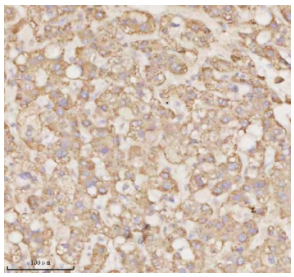
Western blot analysis of MICALL1 using anti-MICALL1 antibody. Lane 1: human MCF-7 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human Hacat whole cell lysates, Lane 4: human RT4 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 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 rabbit anti-MICALL1 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A specific band was detected for MICALL1 at approximately 145 kDa. The expected molecular weight of MICALL1 is ~93 kDa.



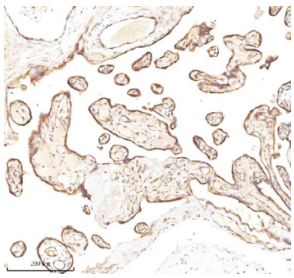
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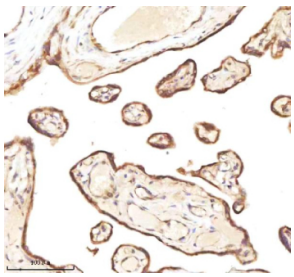
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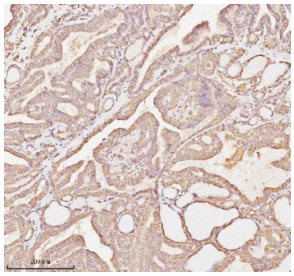
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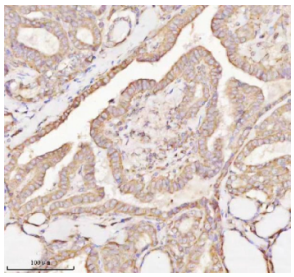
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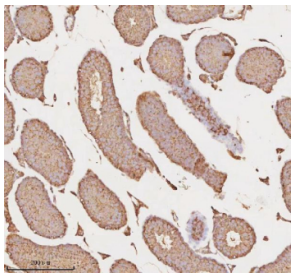
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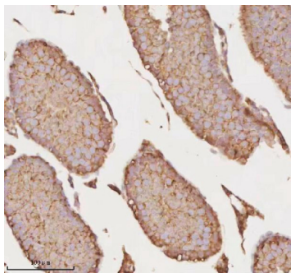
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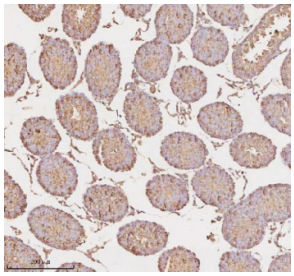
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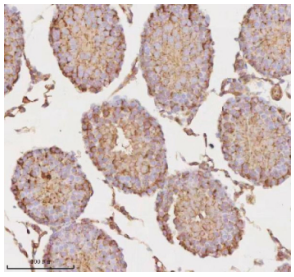
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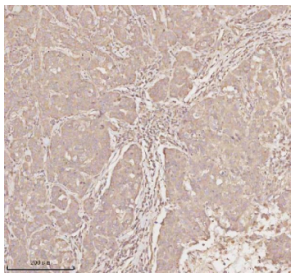
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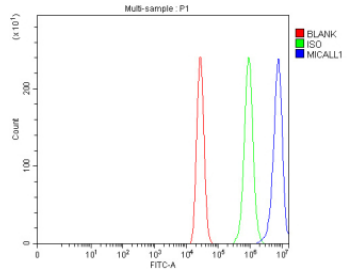
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Flow cytometry analysis of fixed and permeabilized human MCF7 cells with MICALL1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= MICALL1 antibody.

Description

MICALL1 antibody detects MICAL-like protein 1, a cytoskeletal and membrane remodeling protein that regulates endocytic recycling and actin dynamics. MICALL1 belongs to the MICAL family of flavoprotein monooxygenases and adaptors that control trafficking of surface receptors and junctional complexes. Unlike enzymatically active MICALs, MICALL1 acts primarily as a scaffold, coordinating interactions between small GTPases and cytoskeletal components. The MICALL1 antibody is widely used to study vesicular trafficking, recycling endosomes, and cellular polarity.

MICALL1 is encoded by the MICALL1 gene located on human chromosome 22q13.1. The protein is approximately 94 kilodaltons and includes a calponin homology (CH) domain, a LIM domain, and multiple coiled-coil regions that mediate binding to Rab GTPases and the EHD family of endocytic regulators. MICALL1 localizes to tubular recycling endosomes, where it coordinates membrane curvature and receptor sorting.

The MICALL1 antibody detects a 94 kilodalton protein by western blot and shows punctate cytoplasmic staining in immunofluorescence. MICALL1 interacts with Rab8, Rab11, and EHD1, forming a complex that facilitates recycling of receptors such as transferrin and integrins to the plasma membrane. It also binds to actin regulatory proteins, linking vesicle trafficking to cytoskeletal rearrangements and cell morphology maintenance.

Disruption of MICALL1 expression impairs membrane recycling and causes accumulation of endosomal tubules. Mutations in MICALL1 are associated with autosomal recessive neurodevelopmental disorders characterized by ataxia and delayed myelination. In epithelial cells, MICALL1 participates in maintaining tight junction integrity and apical-basal polarity, processes essential for tissue organization.

Because of its central role in coordinating membrane transport, MICALL1 contributes to diverse biological pathways, from nutrient uptake to synaptic vesicle recycling. NSJ Bioreagents provides a validated MICALL1 antibody optimized for its applications, supporting research into vesicular dynamics, receptor trafficking, and cell polarity mechanisms.

Application Notes

Optimal dilution of the MICALL1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human MICALL1 recombinant protein (Position: R192-K747) was used as the immunogen for the MICALL1 antibody.

Storage

After reconstitution, the MICALL1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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