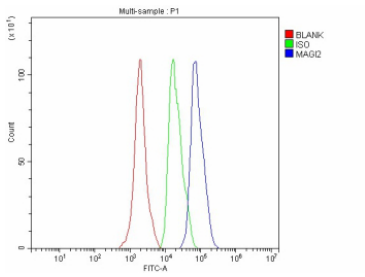
MAGI2 Antibody / Membrane-associated guanylate kinase inverted 2 (FY12579)

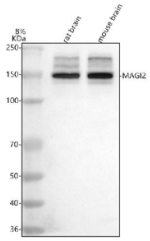
Catalog No.	Formulation	Size
FY12579	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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	Q86UL8
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This MAGI2 antibody is available for research use only.



Flow Cytometry analysis of SH-SY5Y cells using anti-MAGI2 antibody. Overlay histogram showing SH-SY5Y cells stained with (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-MAGI2 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of MAGI2 using anti-MAGI2 antibody. Lane 1: rat brain tissue lysates, Lane 2: 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 rabbit anti-MAGI2 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 major band is detected at ~149 kDa, slightly lower than the predicted 159 kDa and consistent with published reports for full-length MAGI2 (145-155 kDa). Additional weaker bands above and below likely represent phosphorylated or truncated isoforms frequently observed in neural tissue.

Description

MAGI2 antibody detects Membrane-associated guanylate kinase inverted 2, a scaffolding protein located at synapses and tight junctions that organizes signaling complexes for cell polarity and neuronal function. MAGI2 belongs to the MAGUK family of adaptor proteins that coordinate receptor clustering, cytoskeletal interactions, and signal transduction. The MAGI2 antibody is used in studies of synaptic signaling, epithelial junction formation, and protein complex organization.

MAGI2 is encoded by the MAGI2 gene on human chromosome 7q21.11. The protein is approximately 150 kilodaltons and composed of multiple PDZ, WW, and guanylate kinase-like domains that mediate protein-protein interactions. MAGI2 localizes to postsynaptic densities in neurons and to tight junctions in epithelial cells, where it scaffolds transmembrane receptors such as PTEN, NMDA receptor subunits, and beta-catenin.

MAGI2 regulates synaptic plasticity by stabilizing glutamate receptor complexes and maintaining postsynaptic signaling strength. It also anchors PTEN to the plasma membrane, contributing to phosphoinositide signaling and tumor suppression.

Defects or deletions in MAGI2 are associated with neurological disorders including autism spectrum disorder and epilepsy, as well as cancers involving disrupted cell polarity. In epithelial cells, MAGI2 supports junctional integrity and signal compartmentalization, preventing uncontrolled growth and maintaining barrier function.

As a multifunctional scaffolding protein, MAGI2 integrates membrane signaling with structural organization. NSJ Bioreagents provides a validated MAGI2 antibody optimized for its applications, supporting research into synaptic signaling, polarity regulation, and disease mechanisms involving MAGUK family proteins.

Application Notes

Optimal dilution of the MAGI2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human MAGI2 recombinant protein (Position: Q40-P1140) was used as the immunogen for the MAGI2 antibody.

Storage

After reconstitution, the MAGI2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.