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MSN Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1688a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P26038
Reactivity	Human, Monkey
Host	Mouse
Clonality	Monoclonal
Clone Names	2C12
Isotype	IgG1
Calculated MW	67820
Description	Moesin (for membrane-organizing extension spike protein) is a member of the ERM family which includes ezrin and radixin. ERM proteins appear to function as cross-linkers between plasma membranes and actin-based cytoskeletons. Moesin is localized to filopodia and other membranous protrusions that are important for cell-cell recognition and signaling and for cell movement.
Immunogen	Purified recombinant fragment of human MSN expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	4478
Other Names	Moesin, Membrane-organizing extension spike protein, MSN
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MSN Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MSN (HGNC:7373)
Function	Ezrin-radixin-moesin (ERM) family protein that connects the actin cytoskeleton to the plasma membrane and thereby regulates the structure

and function of specific domains of the cell cortex. Tethers actin filaments by oscillating between a resting and an activated state providing transient interactions between moesin and the actin cytoskeleton (PubMed:10212266). Once phosphorylated on its C-terminal threonine, moesin is activated leading to interaction with F-actin and cytoskeletal rearrangement (PubMed:10212266). These rearrangements regulate many cellular processes, including cell shape determination, membrane transport, and signal transduction (PubMed:12387735, PubMed:15039356). The role of moesin is particularly important in immunity acting on both T and B-cells homeostasis and self-tolerance, regulating lymphocyte egress from lymphoid organs (PubMed:9298994, PubMed:9616160). Modulates phagolysosomal biogenesis in macrophages (By similarity). Also participates in immunologic synapse formation (PubMed:27405666).

Cellular Location

Cell membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:P26041}; Cytoplasmic side {ECO:0000250|UniProtKB:P26041}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P26041}. Apical cell membrane {ECO:0000250|UniProtKB:P26041}; Peripheral membrane protein {ECO:0000250|UniProtKB:P26041}; Cytoplasmic side {ECO:0000250|UniProtKB:P26041}. Cell projection, microvillus membrane {ECO:0000250|UniProtKB:P26041}; Peripheral membrane protein {ECO:0000250|UniProtKB:P26041}; Cytoplasmic side {ECO:0000250|UniProtKB:P26041}. Cell projection, microvillus {ECO:0000250|UniProtKB:P26041}. Note=Phosphorylated form is enriched in microvilli-like structures at apical membrane. Increased cell membrane localization of both phosphorylated and non-phosphorylated forms seen after thrombin treatment (By similarity). Localizes at the uropods of T lymphoblasts. {ECO:0000250|UniProtKB:P26041, ECO:0000269|PubMed:18586956, ECO:0000269|PubMed:9298994}

Tissue Location

In all tissues and cultured cells studied.

References

Int J Cancer. 2009 Apr 1;124(7):1614-21. J Biol Chem. 2009 Jan 23;284(4):2419-34.

Images

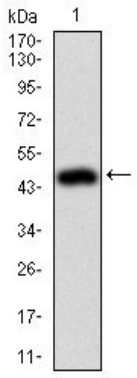
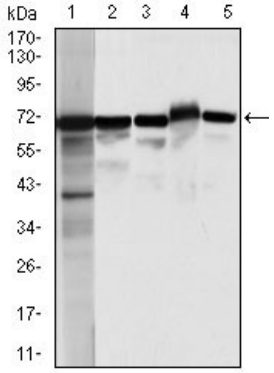


Figure 1: Western blot analysis using MSN mAb against human MSN (AA: 292-491) recombinant protein. (Expected MW is 49.2 kDa)

Figure 2: Western blot analysis using MSN mouse mAb against HeLa (1), A431 (2),Jurkat(3), HEK293(4), and COS7 (5) cell lysate.



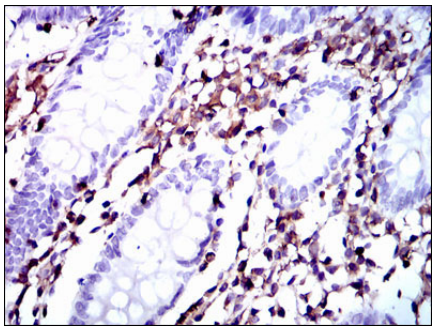


Figure 3: Immunohistochemical analysis of paraffin-embedded colon tissues using MSN mouse mAb with DAB staining.

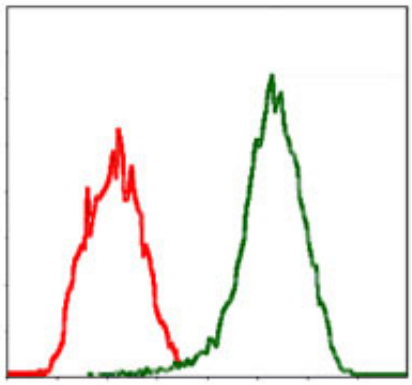


Figure 4: Flow cytometric analysis of Jurkat cells using MSN mouse mAb (green) and negative control (red).