SANTA CRUZ BIOTECHNOLOGY, INC.

MARCKSL1 (K53): sc-130471

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MARCKS (myristoylated alanine-rich protein kinase C substrate), also designated 80K or 80K-L, is a 332 amino acid protein that localizes to the plasma membrane and functions as a major cellular substrate for protein kinase C (PKC). MARCKSL1 (MARCKS-like protein 1), also known as MacMARCKS, MLP, MRP or F52, is a 195 amino acid protein that, like MARCKS, is a major substrate for PKC. Expressed in a variety of tissues with highest levels found in testis and uterus, MARCKSL1 participates in the coordination of membrane-cytoskeletal signaling events, including secretion, migration, phagocytosis and cell adhesion. Additionally, MARCKSL1 functions as a regulator of Integrin activation and is thought to regulate Integrin-dependent signal transduction pathways, especially those involved in macrophage spreading.

REFERENCES

1. Underhill, D.M., et al. 1998. MacMARCKS is not essential for phagocytosis in macrophages. J. Biol. Chem. 273: 33619-33623.
2. Wohnsland, F., et al. 2000. MARCKS-related protein binds to actin without significantly affecting Actin polymerization or network structure. Myristoylated alanine-rich C kinase substrate. J. Struct. Biol. 131: 217-224.
3. Jin, T., et al. 2001. *In vivo* interaction between dynamitin and MacMARCKS detected by the fluorescent resonance energy transfer method. J. Biol. Chem. 276: 12879-12884.

CHROMOSOMAL LOCATION

Genetic locus: MARCKSL1 (human) mapping to 1p35.1.

SOURCE

MARCKSL1 (K53) is a mouse monoclonal antibody raised against recombinant MARCKSL1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MARCKSL1 (K53) is recommended for detection of MARCKSL1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MARCKSL1 siRNA (h): sc-88464, MARCKSL1 shRNA Plasmid (h): sc-88464-SH and MARCKSL1 shRNA (h) Lentiviral Particles: sc-88464-V.

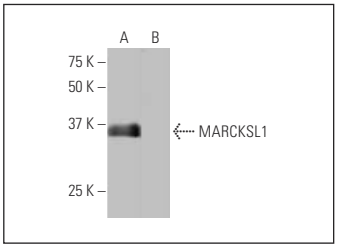
Molecular Weight of MARCKSL1: 20 kDa.

Positive Controls: MARCKSL1 transfected 293T whole cell lysate.

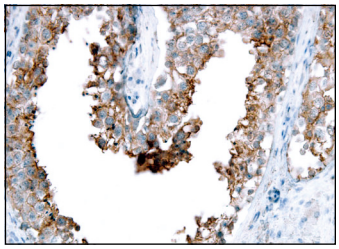
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



MARCKSL1 (K53): sc-130471. Western blot analysis of MARCKSL1 expression in human MARCKSL1 transfected (**A**) and non-transfected (**B**) 293T whole cell lysates.



MARCKSL1 (K53): sc-130471. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human testis tissue showing cytoplasmic and membrane localization.

SELECT PRODUCT CITATIONS

1. Jonsdottir, K., et al. 2012. The prognostic value of MARCKS-like 1 in lymph node-negative breast cancer. Breast Cancer Res. Treat. 135: 381-390.
2. Jung, Y., et al. 2012. Identification of prognostic biomarkers for glioblastomas using protein expression profiling. Int. J. Oncol. 40: 1122-1132.
3. Opsahl, J.A., et al. 2013. Identification of dynamic changes in proteins associated with the cellular cytoskeleton after exposure to okadaic acid. Mar. Drugs 11: 1763-1782.
4. Egeland, N.G., et al. 2019. Validation study of MARCKSL1 as a prognostic factor in lymph node-negative breast cancer patients. PLoS ONE 14: e0212527.
5. Zhao, Y., et al. 2022. MARCKSL1 interacted with F-Actin to promote esophageal squamous cell carcinoma mobility by modulating the formation of invadopodia. Cancer Med. E-published.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.