SANTA CRUZ BIOTECHNOLOGY, INC.

# MLF2 (A-9): sc-393566

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Myeloid leukemia factor (MLF) proteins typically demonstrate highest levels of expression in testis, ovary, skeletal muscle, heart, kidney and colon tissues, and lower levels of expression in spleen, thymus and peripheral blood leukocytes. MLF proteins play a role in normal hemopoietic differentiation as well as in erythroid/myeloid lineage switching. MLF2 is a ubiquitously expressed, 248 amino acid protein which shares 40% sequence identity with myeloid leukemia factor 1 (MLF1). MLF2 maps to chromosome 12p13.31, a region that is often associated with translocations in acute leukemias of lymphoid and myeloid origin. However, no alterations in the structure of the MLF2 locus in patients shown to have 12p translocations have been discovered.

## REFERENCES


1. Kuefer, M.U., et al. 1996. cDNA cloning, tissue distribution and chromosomal localization of myelodysplasia/myeloid leukemia factor 2 (MLF2). Genomics 35: 392-396.
2. Fujimura, H. 1998. Growth inhibition of *Saccharomyces cerevisiae* by the immunosuppressant leflunomide is due to the inhibition of uracil uptake via Fur4p. Mol. Gen. Genet. 260: 102-107.
3. Ohno, K., et al. 2001. Characterization of a *Drosophila* homologue of leukemia factor (MLF). Gene 260: 133-143.
4. Shi, Y.W., et al. 2003. Gene expression profile changes in human multiple myeloma. Hunan Yi Ke Da Xue Xue Bao 28: 201-205.
5. Noe, V., et al. 2004. Epicatechin and a cocoa polyphenolic extract modulate gene expression in human Caco-2 cells. J. Nutr. 134: 2509-2516.


## CHROMOSOMAL LOCATION

Genetic locus: MLF2 (human) mapping to 12p13.31; Mlf2 (mouse) mapping to 6 F2.

## SOURCE

MLF2 (A-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 224-247 at the C-terminus of MLF2 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MLF2 (A-9) is available conjugated to agarose (sc-393566 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393566 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393566 PE), fluorescein (sc-393566 FITC), Alexa Fluor® 488 (sc-393566 AF488), Alexa Fluor® 546 (sc-393566 AF546), Alexa Fluor® 594 (sc-393566 AF594) or Alexa Fluor® 647 (sc-393566 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393566 AF680) or Alexa Fluor® 790 (sc-393566 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393566 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).



## APPLICATIONS

MLF2 (A-9) is recommended for detection of MLF2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MLF2 siRNA (h): sc-61059, MLF2 siRNA (m): sc-61060, MLF2 shRNA Plasmid (h): sc-61059-SH, MLF2 shRNA Plasmid (m): sc-61060-SH, MLF2 shRNA (h) Lentiviral Particles: sc-61059-V and MLF2 shRNA (m) Lentiviral Particles: sc-61060-V.

Molecular Weight (predicted) of MLF2: 28 kDa.

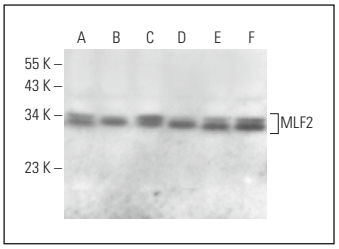
Molecular Weight (observed) of MLF2: 33 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

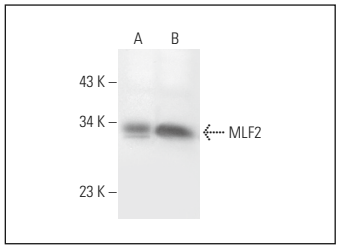
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA




MLF2 (A-9): sc-393566. Western blot analysis of MLF2 expression in SH-SY5Y (**A**), HeLa (**B**), F9 (**C**), EOC 20 (**D**), C6 (**E**) and PC-12 (**F**) whole cell lysates.




MLF2 (A-9): sc-393566. Western blot analysis of MLF2 expression in Hep G2 (**A**) and K-562 (**B**) whole cell lysates.

## 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.

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.