SANTA CRUZ BIOTECHNOLOGY, INC.

MLF2 (h): 293T Lysate: sc-110557

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., Look, A.T., Williams, D.C., Valentine, V., Naeve, C.W., Behm, F.G., Mullersman, J.E., Yoneda-Kato, N., Montgomery, K., Kucherlapati, R. and Morris, S.W. 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., Takahashi, Y., Hirose, F., Inoue, Y.H., Taguchi, O., Nishida, Y., Matsukage, A. and Yamaguchi, M. 2001. Characterization of a *Drosophila* homologue of leukemia factor (MLF). Gene 260: 133-143.
4. Shi, Y.W., Hu, W.X. and Tang, L.J. 2003. Gene expression profile changes in human multiple myeloma. Hunan Yi Ke Da Xue Xue Bao 28: 201-205.
5. Noé, V., Peñuelas, S., Lamuela-Raventós, R.M., Permanyer, J., Ciudad, C.J. and Izquierdo-Pulido, M. 2004. Epicatechin and a cocoa polyphenolic extract modulate gene expression in human Caco-2 cells. J. Nutr. 134: 2509-2516.
6. Kim, W.Y., Fayazi, Z., Bao, X., Higgins, D. and Kazemi-Esfarjani, P. 2005. Evidence for sequestration of polyglutamine inclusions by *Drosophila* myeloid leukemia factor. Mol. Cell. Neurosci. 29: 536-544.

CHROMOSOMAL LOCATION

Genetic locus: MLF2 (human) mapping to 12p13.31.

PRODUCT

MLF2 (h): 293T Lysate represents a lysate of human MLF2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MLF2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MLF2 antibodies.

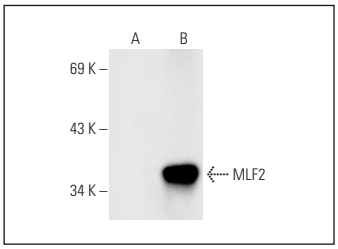
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-tranfected 293T cells.

MLF2 (B-1): sc-166881 is recommended as a positive control antibody for Western Blot analysis of enhanced human MLF2 expression in MLF2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

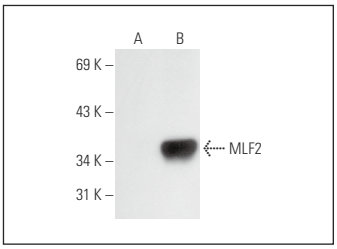
RECOMMENDED SUPPORT REAGENTS

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.

DATA



MLF2 (B-1): sc-166881. Western blot analysis of MLF2 expression in non-transfected: sc-117752 (**A**) and human MLF2 transfected: sc-110557 (**B**) 293T whole cell lysates.



MLF2 (C-7): sc-166202. Western blot analysis of MLF2 expression in non-transfected: sc-117752 (**A**) and human MLF2 transfected: sc-110557 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.