

MECL-1 (m): 293T Lysate: sc-121580

BACKGROUND

The 20S proteasome is a protease complex that is responsible for cytosolic protein degradation and generation of peptide ligands for major histocompatibility complex (MHC) class I molecules, either in their final form or in the form of amino-terminally extended precursors. Upon IFN- γ stimulation of cells, three constitutively expressed subunits of the 20S proteasome are replaced by inducible subunits LMP2 (low-molecular mass polypeptide 2), LMP7 and MECL-1 (multicatalytic endopeptidase complex-like-1, LMP10). LMP2, LMP7 and MECL-1 subunits form immunoproteasomes, which are associated with more efficient class I antigen processing and presentation. Independent assortment of LMP-2, LMP-7, and MECL-1 into different proteasome complexes can lead to 36 unique proteasome subsets, which may mediate differences in the cleavage specificities/cleavage motifs of proteins subject to constitutive- and immuno-proteasomes.

REFERENCES

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2. Frisan, T., Levitsky, V., Polack, A. and Masucci, M.G. 1998. Phenotype-dependent differences in proteasome subunit composition and cleavage specificity in B cell lines. *J. Immunol.* 160: 3281-3289.
3. Sijts, A.J., Ruppert, T., Rehmann, B., Schmidt, M., Koszinowski, U. and Kloetzel, P.M. 2000. Efficient generation of a hepatitis B virus cytotoxic T lymphocyte epitope requires the structural features of immunoproteasomes. *J. Exp. Med.* 191: 503-514.
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5. Toes, R.E., Nussbaum, A.K., Degermann, S., Schirle, M., Emmerich, N.P., Kraft, M., Laplace, C., Zwiderman, A., Dick, T.P., Muller, J., Schonfisch, B., Schmid, C., Fehling, H.J., Stevanovic, S., Rammensee, H.G. and Schild, H. 2001. Discrete cleavage motifs of constitutive and immunoproteasomes revealed by quantitative analysis of cleavage products. *J. Exp. Med.* 194: 1-12.

CHROMOSOMAL LOCATION

Genetic locus: Psmb10 (mouse) mapping to 8 D3.

PRODUCT

MECL-1 (m): 293T Lysate represents a lysate of mouse MECL-1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

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.

APPLICATIONS

MECL-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MECL-1 antibodies. Recommended use: 10-20 μ l per lane.

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

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.