SANTA CRUZ BIOTECHNOLOGY, INC.

U-937 Cell Lysate: sc-2239

BACKGROUND

Santa Cruz Biotechnology offers a variety of whole cell lysates for use in combination with our antibodies as Western Blotting controls. U-937 Whole Cell Lysate is derived from the U-937 cell line using a procedure that ensures protein integrity and lot-to-lot reproducibility. All lysates are tested by Western Blotting to assure that each one contains the expected concentration and assortment of proteins. Numerous antibodies directed against a wide array of mammalian proteins are used to test each lysate.

The U-937 cell line was derived by Sundstrom and Nilsson in 1974 from malignant cells obtained from the pleural effusion of a patient with histiocytic lymphoma. Studies since 1979 have shown that U-937 cells can be induced to terminal monocytic differentiation by supernatants from human mixed lymphocyte cultures, phorbol esters, vitamin D3, γ interferon, tumor necrosis factor (TNF) and retinoic acid. U-937 cells are negative for immunoglobulin production and Epstein-Barr virus expression, express the Fas antigen, and are sensitive to TNF and anti-Fas antibodies.

REFERENCES

1. Ralph, P., et al. 1976. Lysozyme synthesis by established human and murine histiocytic lymphoma cell lines. J. Exp. Med. 143: 1528-1533.
2. Rosenfeld, C. and Serrou, B., eds. 1980. International Symposium on New Trends in Human Immunology and Cancer Immunotherapy. Paris: Doin Editeurs.
3. Andersson, L.C., Gahmberg, C.G. and Ekblom, P., eds. 1985. Gene Expression During Normal and Malignant Differentiation. London: Academic Press.

SOURCE

U-937 Whole Cell Lysate is derived from the U-937 cell line.

Organism:	*Homo sapiens* (human)
Morphology:	Monocyte
Disease:	Histiocytic lymphoma
Growth Properties:	Suspension

PRODUCT

Each vial contains 500 µg protein in 200 µl of an SDS-PAGE Western Blotting buffer, which consists of 100 µl RIPA Lysis Buffer and 100 µl Electrophoresis Buffer, 2X.

APPLICATIONS

U-937 Whole Cell Lysate is provided as a Western Blotting positive control. Recommended use is 50 µg (20 µl) per lane. Sample vial should be boiled once prior to use.

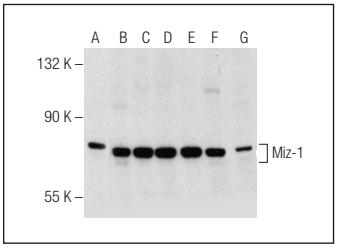
STORAGE

Store at -20° C; stable for one year from the date of shipment. Non-hazardous. No MSDS required. Minimize repeated freezing and thawing.

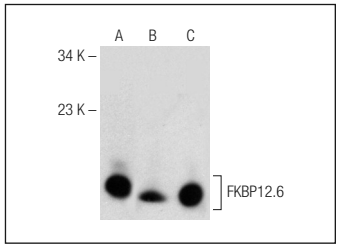
PREPARATION METHOD

Cells are cultured with appropriate media conditions and allowed to reach a confluency of 75%. Cells are lysed using the RIPA Lysis Buffer System (sc-24948). The BCA Protein Assay Kit (sc-202389) is used to determine the total protein concentration. The lysate is adjusted to contain 500 µg of total cellular protein in 100 µl before adding an equal volume of Electrophoresis Sample Buffer, 2X (sc-24945). Final concentration of product is 500 µg total protein in a final volume of 200 µl.

DATA



Miz-1 (B-10): sc-136985. Western blot analysis of Miz-1 expression in HeLa (**A**), HT-1080 (**B**), Caco-2 (**C**), HL-60 (**D**), U-937 (**E**), NIH/3T3 (**F**) and HCT 116 (**G**) whole cell lysates.



FKBP12.6 (H-8): sc-376135. Western blot analysis of FKBP12.6 expression in U-937 whole cell lysate (**A**) and mouse heart (**B**) and human heart (**C**) tissue extracts.

SELECT PRODUCT CITATIONS

1. Brender, C., et al. 2001. STAT3-mediated constitutive expression of SOCS-3 in cutaneous T-cell lymphoma. Blood 97: 1056-1062.
2. Bradesi, S., et al. 2006. The role of neurokinin 1 receptors in the maintenance of visceral hyperalgesia induced by repeated stress in rats. Gastroenterology 130: 1729-1742.
3. Abbott, B.D., et al. 2010. Peroxisome proliferator-activated receptors α, β, and γ mRNA and protein expression in human fetal tissues. PPAR Res. 2010. pii: 690907.

RESEARCH USE

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

PROTOCOLS

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