SANTA CRUZ BIOTECHNOLOGY, INC.

F9 Cell Lysate: sc-2245

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Santa Cruz Biotechnology offers a variety of whole cell lysates for use in combination with our antibodies as Western Blotting controls. F9 Whole Cell Lysate is derived from the F9 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.

F9 cells can be stimulated to differentiate into parietal endoderm in the presence of retinoic acid and dibutyryl cyclic AMP (cAMP). Differentiating cells synthesize plasminogen activator, Laminin and Collagen Type IV. cAMP is active only on cells that have been treated with retinoic acid. The cells maintain three copies of the Integrin β1 gene. Tested and found negative for ectromelia virus (mousepox).

REFERENCES

1. Berstine, E.G., Hooper, M.L., Grandchamp, S. and Ephrussi, B. 1973. Alkaline phosphatase activity in mouse teratoma. Proc. Natl. Acad. Sci. USA 70: 3899-3903.
2. Stephens, L.E., Sonne, J.E., Fitzgerald, M.L. and Damsky, C.H. 1993. Targeted deletion of β1 integrins in F9 embryonal carcinoma cells affects morphological differentiation but not tissue-specific gene expression. J. Cell Biol. 123: 1607-1620.
3. Jang, S.I., Steinert, P.M., Markova, N.G. 1996. Activator protein 1 activity is involved in the regulation of the cell type-specific expression from the proximal promoter of the human profilaggrin gene. J. Biol. Chem. 271: 24105-24114.

SOURCE

F9 Whole Cell Lysate is derived from the F9 cell line.

Organism:	*Mus musculus* (mouse)
Strain:	129
Tissue:	Testis
Disease:	Embryonal carcinoma; testicular teratoma
Cell Type:	Epithelial
Growth Properties:	Adherent

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

F9 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.

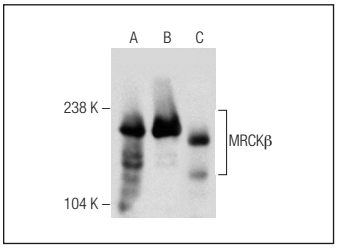
STORAGE

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

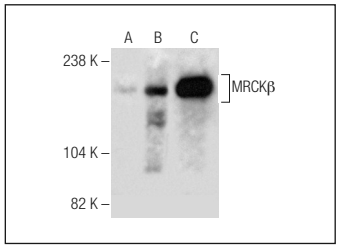
PREPARATION METHOD

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



MRCKβ (D-7): sc-390076. Western blot analysis of MRCKβ expression in NIH/3T3 (**A**), F9 (**B**) and NTERA-2 cl.D1 (**C**) whole cell lysates.



MRCKβ (A-2): sc-390127. Western blot analysis of MRCKβ expression in COLO 320DM (**A**), NIH/3T3 (**B**) and F9 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Rieske, P., et al. 2005. Human fibroblast-derived cell lines have characteristics of embryonic stem cells and cells of neuro-ectodermal origin. Differentiation 73: 474-483.
2. Levenstein, M.E., et al. 2006. Basic fibroblast growth factor support of human embryonic stem cell self-renewal. Stem Cells 24: 568-574.
3. Esqueda, M.E., et al. 2007. Effect of ovariectomy on renal estrogen receptor-α and estrogen receptor-β in young salt-sensitive and -resistant rats. Hypertension 50: 768-772.
4. Rosati, E., et al. 2008. Constitutively activated Notch signaling is involved in survival and apoptosis resistance of B-CLL cells. Blood 113: 856-865.

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.