SANTA CRUZ BIOTECHNOLOGY, INC.

A549 Whole Cell Lysate: sc-2413

BACKGROUND

Santa Cruz Biotechnology offers a variety of whole cell lysates for use in combination with our antibodies as Western Blotting controls. A549 Whole Cell Lysate is derived from the A549 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 A549 line was initiated in 1972 by D.J. Giard, et al through explant culture of lung carcinomatous tissue from a 58 year old Caucasian male. Further studies by M. Lieber, et al revealed that A549 cells could synthesize lecithin with a high percentage of desaturated fatty acids utilizing the cytidine diphosphocholine pathway. The cells are positive for keratin by immunoperoxidase staining.

REFERENCES

1. Giard, D.J., Aaronson, S.A., Todaro, G.J., Arnstein, P., Kersey, J.H., Dosik, H., Parks, W.P. 1973. *In vitro* cultivation of human tumors: establishment of cell lines derived from a series of solid tumors. J. Natl. Cancer Inst. 51: 1417-1423.
2. Mayr, G.A. and Freimuth, P. 1997. A single locus on human chromosome 21 directs the expression of a receptor for adenovirus type 2 in mouse A9 cells. J. Virol. 71: 412-418.
3. Goodrum, F.D. and Ornelles, D.A. 1997. The early region 1B 55-kilodalton oncoprotein of adenovirus relieves growth restrictions imposed on viral replication by the cell cycle. J. Virol. 71: 548-561.

SOURCE

A549 Whole Cell Lysate is derived from the A549 cell line.

Organism:	*Homo sapiens* (human)
Organ:	Lung
Disease:	Carcinoma
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

A549 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.

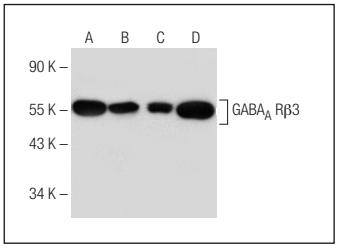
STORAGE

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

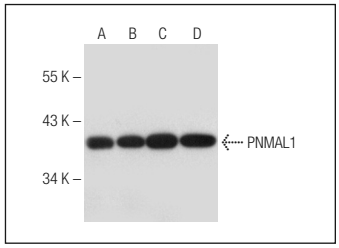
PREPARATION METHOD

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



GABA$_A$ Rβ3 (D-12): sc-376252. Western blot analysis of GABA$_A$ Rβ3 expression in H4 (**A**), SK-N-SH (**B**), IMR-32 (**C**) and A549 (**D**) whole cell lysates.



PNMAL1 (E-13): sc-241631. Western blot analysis of PNMAL1 expression in U-87 MG (**A**), Hep G2 (**B**), A549 (**C**) and K-562 (**D**) whole cell lysates.

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.