

c4 Whole Cell Lysate: sc-364186

BACKGROUND

Santa Cruz Biotechnology offers a variety of whole cell lysates for use in combination with our antibodies as Western Blotting controls. c4 Whole Cell Lysate is derived from the c4 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 c4 cell line lacks functional aryl hydrocarbon receptor nuclear translocator protein (ARNT), due to a point mutation (Gly 326 to Asp) in the ARNT gene. ARNT is directly involved in the regulation of xenobiotic metabolism (including chemical carcinogenesis), hypoxia and differentiation during embryogenesis.

REFERENCES

- Hankinson, O. 1980. Mutants of cultured hepatoma cells deficient in aryl hydrocarbon hydroxylase. In Hankinson, O. *Microsomes, drug oxidations, and chemical carcinogenesis*. New York: Academic Press, 1149-1152.
- Hoffman, E.C., Reyes, H., Chu, F.F., Sander, F., Conley, L.H., Brooks, B.A. and Hankinson, O. 1991. Cloning of a factor required for activity of the Ah (dioxin) receptor. *Science* 252: 954-958.
- Numayama-Tsuruta, K., Kobayashi, A., Sogawa, K. and Fujii-Kuriyama, Y. 1997. A point mutation responsible for defective function of the aryl-hydrocarbon-receptor nuclear translocator in mutant Hepa-1c1c7 cells. *Eur. J. Biochem.* 246: 486-495.

SOURCE

c4 Whole Cell Lysate is derived from the c4 cell line.

Organism: *Mus musculus* (mouse)
 Strain: C57L/J
 Tissue: Liver
 Disease: Hepatoma
 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

c4 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.

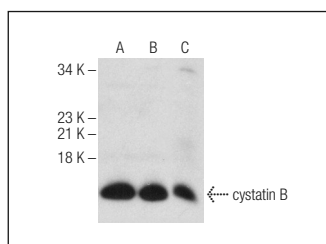
STORAGE

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

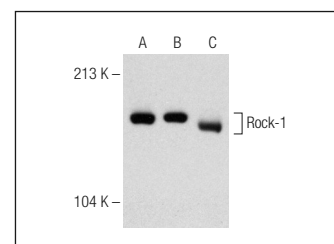
PREPARATION METHOD

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



cystatin B (M-40): sc-66854. Western blot analysis of cystatin B expression in c4 (A) and EOC 20 (B) whole cell lysates and mouse lymph node tissue extract (C).



Rock-1 (G-6): sc-17794. Western blot analysis of Rock-1 expression in KNRK (A) and c4 (B) whole cell lysates and mouse liver tissue extract (C).

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.