SANTA CRUZ BIOTECHNOLOGY, INC.

Hep G2 Cell Lysate: sc-2227

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. Hep G2 Whole Cell Lysate is derived from the Hep G2 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. Hep G2 cells express 3-hydroxy-3-methylglutaryl-CoA reductase and hepatic triglyceride lipase activities. The cells demonstrate decreased expression of apoA-I mRNA and increased expression of catalase mRNA in response to gramoxone (oxidative stress).

REFERENCES

1. Knowles, B.B., et al. 1980. Human hepatocellular carcinoma cell lines secrete the major plasma proteins and hepatitis B surface antigen. Science 209: 497-499.
2. Knowles, B.B., et al. 1983. Human hepatoma derived cell line, process for preparation thereof, and uses therefor. US Patent 4,393,133.
3. Schardt, C., et al. 1993. Characterization of Insulin-like growth factor II receptors in human small cell lung cancer cell lines. Exp. Cell Res. 204: 22-29.

SOURCE

Hep G2 Whole Cell Lysate is derived from the Hep G2 cell line.

Organism:	*Homo sapiens* (human)
Organ:	Liver
Disease:	Hepatocellular 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

Hep G2 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.

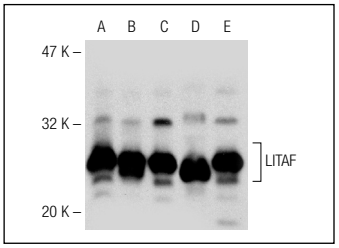
PROTOCOLS

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

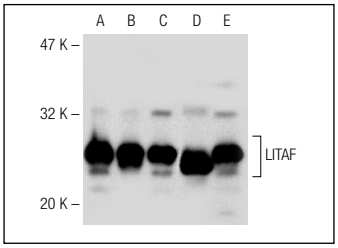
PREPARATION METHOD

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



LITAF (C-5): sc-166719. Western blot analysis of LITAF expression in HeLa (**A**), Hep G2 (**B**), A-431 (**C**), LPS treated HL-60 (**D**) and LPS treated U-937 (**E**) whole cell lysates.



LITAF (D-5): sc-166546. Western blot analysis of LITAF expression in HeLa (**A**), Hep G2 (**B**), A-431 (**C**), LPS treated HL-60 (**D**) and LPS treated U-937 (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Bisland, S.K., et al. 2007. Increased expression of mitochondrial benzodiazepine receptors following low-level light treatment facilitates enhanced protoporphyrin IX production in glioma-derived cells *in vitro*. Lasers Surg. Med. 39: 678-684.
2. Joseph, D.S., et al. 2009. Myometrial cells undergo fibrotic transformation under the influence of transforming growth factor β-3. Fertil. Steril. 93: 1500-1508.
3. Hara, S., et al. 2011. Bezafibrate restores the inhibition of FSH-induced follicular development and steroidogenesis by tumor necrosis factor-α through peroxisome proliferator-activated receptor-γ pathway in an *in vitro* mouse preantral follicle culture. Biol. Reprod. 85: 895-906.
4. Dai, C.F., et al. 2011. Expression and roles of Slit/Robo in human ovarian cancer. Histochem. Cell Biol. 135: 475-485.
5. Goonetilleke, U.R., et al. 2012. Death is associated with complement C3 depletion in cerebrospinal fluid of patients with pneumococcal meningitis. MBio 3: e00272-e00311.
6. Vogler, T., et al. 2012. The expression pattern of aldehyde dehydrogenase 1 (ALDH1) is an independent prognostic marker for low survival in colorectal tumors. Exp. Mol. Pathol. 92: 111-117.

RESEARCH USE

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