

SW480 Cell Lysate: sc-2219

BACKGROUND

Santa Cruz Biotechnology offers a variety of whole cell lysates for use in combination with our antibodies as Western Blotting controls. SW480 Whole Cell Lysate is derived from the SW480 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.

SW480 cell line was established from a primary adenocarcinoma of the colon in a 50 year old male Caucasian. The cells are positive for keratin by immunoperoxidase staining. The cells express elevated levels of the p53 protein. The line is positive for expression of c-Myc, K-Ras, H-Ras, N-Ras, Myb, Sis and Fos oncogenes. N-Myc oncogene expression was not detected. Matrilysin, a metalloproteinase associated with tumor invasiveness, is not expressed. The cells have been reported to produce GM-CSF. This line has a mutation in codon 12 of the Ras protooncogene, and can be used as a positive control for PCR assays of mutation in this codon. The line also has receptors for epidermal growth factor (EGF).

REFERENCES

- Leibovitz, A., Stinson, J.C., McCombs, W.B., 3rd, McCoy, C.E., Mazur, K.C. and Mabry, N.D. 1976. Classification of human colorectal adenocarcinoma cell lines. *Cancer Res.* 36: 4562-4569.
- Fogh, J., Wright, W.C. and Loveless, J.D. 1977. Absence of HeLa cell contamination in 169 cell lines derived from human tumors. *J. Natl. Cancer Inst.* 58: 209-214.
- Fogh, J., Fogh, J.M. and Orfeo, T. 1977. One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *J. Natl. Cancer Inst.* 59: 221-226.
- Leibovitz, A., Wright, W.C., Pathak, S., Siciliano, M.J. and Daniels, W.P. 1979. Detection and analysis of a glucose 6-phosphate dehydrogenase phenotype B cell line contamination. *J. Natl. Cancer Inst.* 63: 635-645.
- Adachi, A., Koenig, S., Gendelman, H.E., Daugherty, D., Gattoni-Celli, S., Fauci, A.S. and Martin, M.A. 1987. Productive, persistent infection of human colorectal cell lines with human immunodeficiency virus. *J. Virol.* 61: 209-213.
- Trainer, D.L., Kline, T., McCabe, F.L., Faucette, L.F., Feild, J., Chaikin, M., Anzano, M., Rieman, D., Hoffstein, S., Li, D.J., et al. 1988. Biological characterization and oncogene expression in human colorectal carcinoma cell lines. *Int. J. Cancer* 41: 287-296.
- Nigro, J.M., Baker, S.J., Preisinger, A.C., Jessup, J.M., Hostetter, R., Cleary, K., Bigner, S.H., Davidson, N., Baylin, S., Devilee, P., et al. 1989. Mutations in the p53 gene occur in diverse human tumour types. *Nature* 342: 705-707.

STORAGE

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

SOURCE

SW480 Whole Cell Lysate is derived from the SW480 cell line.

Organism: *Homo sapiens* (human)
 Organ: Colon
 Tumor Stage: Dukes' type B
 Disease: Colorectal adenocarcinoma
 Growth Properties: Adherent epithelial

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.

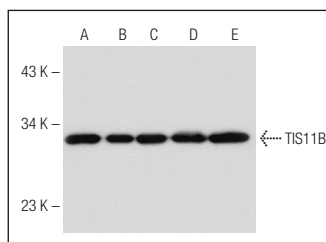
APPLICATIONS

SW480 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.

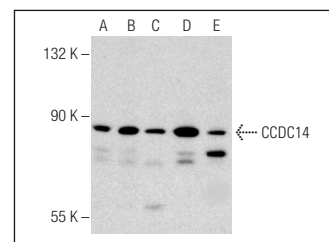
PREPARATION METHOD

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



TIS11B (A-21): sc-134091. Western blot analysis of TIS11B expression in JAR (A), Ramos (B), A549 (C), MCR7 (D) and SW480 (E) whole cell lysates.



CCDC14 (Y-16): sc-102411. Western blot analysis of CCDC14 expression in MCF7 (A), SW480 (B), T84 (C), MDA-MB-231 (D) and Jurkat (E) whole cell lysates.

SELECT PRODUCT CITATIONS

- Palladino, M.A., Johnson, T.A., Gupta, R., Chapman, J.L. and Ojha, P. 2007. Members of the Toll-like receptor family of innate immunity pattern-recognition receptors are abundant in the male rat reproductive tract. *Biol. Reprod.* 76: 958-964.

RESEARCH USE

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