

# PC-3 Cell Lysate: sc-2220

## BACKGROUND

Santa Cruz Biotechnology offers a variety of whole cell lysates for use in combination with our antibodies as Western Blotting controls. PC-3 Whole Cell Lysate is derived from the PC-3 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 PC-3 cell line was initiated from a bone metastasis of a grade IV prostatic adenocarcinoma from a 62 year old male Caucasian. The cells exhibit low acid phosphatase and testosterone-5- $\alpha$ -reductase activities. The line is near-triploid with a modal number of 62 chromosomes. There are nearly 20 marker chromosomes commonly found in each cell; normal N2, N3, N4, N5, N12 and N15 are not found. No normal Y chromosomes could be detected by Q-band analysis.

## REFERENCES

1. Kaighn, M.E., Narayan, K.S., Ohnuki, Y., Lechner, J.F. and Jones, L.W. 1979. Establishment and characterization of a human prostatic carcinoma cell line (PC-3). *Invest. Urol.* 17: 16-23.
2. Ohnuki, Y., Marnell, M.M., Babcock, M.S., Lechner, J.F. and Kaighn, M.E. 1980. Chromosomal analysis of human prostatic adenocarcinoma cell lines. *Cancer Res.* 40: 524-534.
3. Chen, T.R. 1993. Chromosome identity of human prostate cancer cell lines, PC-3 and PPC-1. *Cytogenet. Cell Genet.* 62: 183-184.
4. Sheng, S., Carey, J., Seftor, E.A., Dias, L., Hendrix, M.J. and Sager, R. 1996. Maspin acts at the cell membrane to inhibit invasion and motility of mammary and prostatic cancer cells. *Proc. Natl. Acad. Sci. USA* 93: 11669-11674.

## SOURCE

PC-3 Whole Cell Lysate is derived from the PC-3 cell line.

Organism:	<i>Homo sapiens</i> (human)
Organ:	Prostate
Disease:	Adenocarcinoma
Tumor Stage:	Grade IV
Derived from metastatic site:	Bone
Growth Properties:	Adherent (the cells form clusters in soft agar and can be adapted to suspension growth)

## PRODUCT

Each vial contains 500  $\mu$ g protein in 200  $\mu$ l of an SDS-PAGE Western Blotting buffer, which consists of 100  $\mu$ l RIPA Lysis Buffer and 100  $\mu$ l Electrophoresis Buffer, 2X.

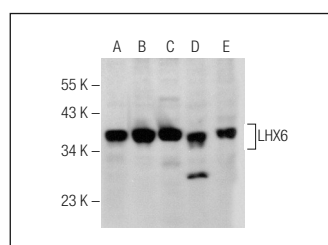
## APPLICATIONS

PC-3 Whole Cell Lysate is provided as a Western Blotting positive control. Recommended use is 50  $\mu$ g (20  $\mu$ l) per lane. Sample vial should be boiled once prior to use.

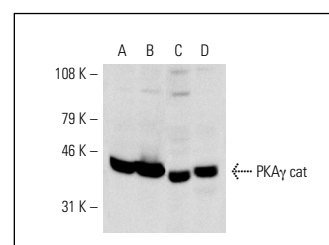
## PREPARATION METHOD

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  $\mu$ g of total cellular protein in 100  $\mu$ l before adding an equal volume of Electrophoresis Sample Buffer, 2X (sc-24945). Final concentration of product is 500  $\mu$ g total protein in a final volume of 200  $\mu$ l.

## DATA



LHX6 (JJ-06): sc-81970. Western blot analysis of LHX6 expression in NIH/3T3 (A), MDA-MB-231 (B), T-47D (C), U87-MG (D) and PC-3 (E) whole cell lysates.



PKA $\gamma$  cat (A-2): sc-28315. Western blot analysis of PKA $\gamma$  cat expression in MCF7 (A), PC-3 (B), NIH/3T3 (C) and KNRK (D) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Romero, M., Ortega, A., Izquierdo, A., López-Luna, P. and Bosch, R.J. 2010. Parathyroid hormone-related protein induces hypertrophy in podocytes via TGF- $\beta$ 1 and p27Kip1: implications for diabetic nephropathy. *Nephrol. Dial. Transplant.* 25: 2447-2457.
2. Haubold, M., Weise, A., Stephan, H. and Dünker, N. 2010. Bone morphogenetic protein 4 (BMP4) signaling in retinoblastoma cells. *Int. J. Biol. Sci.* 6: 700-715.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.