SANTA CRUZ BIOTECHNOLOGY, INC.

PC-12 Cell Lysate: sc-2250

BACKGROUND

Santa Cruz Biotechnology offers a variety of whole cell lysates for use in combination with our antibodies as Western Blotting controls. PC-12 Cell Lysate is derived from the PC-12 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-12 cell line was derived from a transplantable rat pheochromocytoma. The cells respond reversibly to NGF by induction of the neuronal phenotype when plated on Collagen IV coated culture flasks. The cells do not synthesize epinephrine.

REFERENCES

1. Greene, L.A. and Tischler, A.S. 1976. Establishment of a noradrenergic clonal line of rat adrenal pheochromocytoma cells which respond to nerve growth factor. Proc. Natl. Acad. Sci. USA 73: 2424-2428.
2. Biocca, S., Cattaneo, A. and Calissano, P. 1983. A macromolecular structure favouring microtubule assembly in NGF-differentiated pheochromocytoma cells (PC12). EMBO J. 2: 643-648.
3. Levi, A., Eldridge, J.D. and Paterson, B.M. 1985. Molecular cloning of a gene sequence regulated by nerve growth factor. Science 229: 393-395.

SOURCE

PC-12 Cell Lysate is derived from the PC-12 cell line.

Organism:	*Rattus norvegicus* (rat)
Morphology:	Small irregularly shaped cells
Organ:	Adrenal gland
Disease:	Pheochromocytoma
Growth Properties:	Floating clusters; few scattered lightly attached cells

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

PC-12 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.

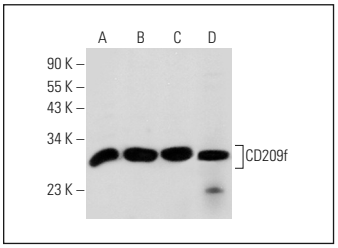
PREPARATION METHOD

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.

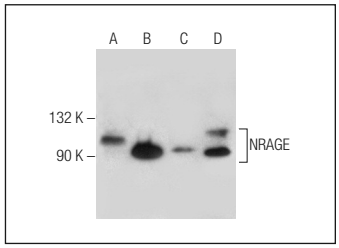
STORAGE

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

DATA



CD209f (M-13): sc-241346. Western blot analysis of CD209f expression in F9 (**A**), RAW 264.7 (**B**) and PC-12 (**C**) whole cell lysates and mouse liver tissue extract (**D**).



NRAGE (31): sc-136552. Western blot analysis of NRAGE expression in WI 38 (**A**), PC-12 (**B**), Jurkat (**C**) and L6 (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Liles, J.T., Baber, S.R., Deng, W., Porter, J.R., Corll, C., Murthy, S.N., Thomas, S.A. and Kadowitz, P.J. 2007. Pressor responses to ephedrine are not impaired in dopamine β-hydroxylase knockout mice. Br. J. Pharmacol. 150: 29-36.
2. Niizuma, K., Endo, H., Nito, C., Myer, D.J., Kim, G.S. and Chan, P.H. 2008. The PIDDosome mediates delayed death of hippocampal CA1 neurons after transient global cerebral ischemia in rats. Proc. Natl. Acad. Sci. USA 105: 16368-16373.
3. Bulbarelli, A., Lonati, E., Cazzaniga, E., Re, F., Sesana, S., Barisani, D., Sancini, G., Mutoh, T. and Masserini, M. 2009. TrkA pathway activation induced by amyloid-β (Aβ). Mol. Cell. Neurosci. 40: 365-373.

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.