SANTA CRUZ BIOTECHNOLOGY, INC.

C2C12 Whole Cell Lysate: sc-364188

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. C2C12 Whole Cell Lysate is derived from the C2C12 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 C2C12 cell line differentiates rapidly, forming contractile myotubes and producing characteristic muscle proteins. Treatment with bone morphogenic protein 2 (BMP-2) causes a shift in the differentiation pathway from myoblastic to osteoblastic. Tested and found negative for ectromelia virus (mousepox).

REFERENCES

1. Kessler, P.D., Podsakoff, G.M., Chen, X., McQuiston, S.A., Colosi, P.C., Matelis, L.A., Kurtzman, G.J. and Byrne, B.J. 1996. Gene delivery to skeletal muscle results in sustanined expression and systemic delivery of a therapeutic protein. Proc. Natl. Acad. Sci. USA 93: 14082-14087.
2. Hsu, D.K., Guo, Y., Alberts, G.F., Copeland, N.G., Gilbert, D.J., Jenkins, N.A., Peifley, K.A. and Winkles, J.A. 1996. Identification of a murine TEF-1-related gene expressed after mitogenic stimulation of quiescent fibroblasts and during myogenic differentiation. J. Biol. Chem. 271: 13786-13795.
3. Yang, Q., Jian, J., Abramson, S.B. and Huang, X. 2011. Inhibitory effects of iron on bone morphogenetic protein 2-induced osteoblastogenesis. J. Bone Miner. Res. 26: 1188-1196.

SOURCE

C2C12 Whole Cell Lysate is derived from the C2C12 cell line.

Organism:	*Mus musculus* (mouse)
Strain:	C_3H
Tissue:	Muscle
Cell Type:	Myoblast
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

C2C12 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.

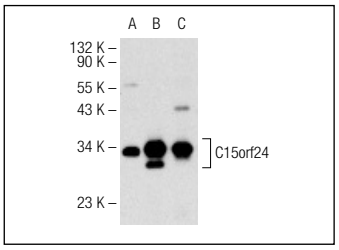
STORAGE

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

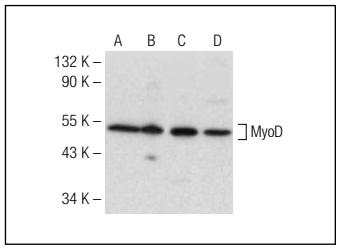
PREPARATION METHOD

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



C15orf24 (F-12): sc-138754. Western blot analysis of C15orf24 expression in C2C12 whole cell lysate (**A**) and mouse brain (**B**) and mouse embryo (**C**) tissue extracts.



MyoD (C-20): sc-304. Western blot analysis of MyoD expression in A-673 (**A**) and Sol8 (**B**) nuclear extracts and C2C12 (**C**) and Sol8 (**D**) whole cell lysates.

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.