SANTA CRUZ BIOTECHNOLOGY, INC.

Jurkat + hydrogen peroxide Cell Lysate: sc-24714

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. Jurkat Whole Cell Lysate is derived from the Jurkat 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 contains the expected concentration and assortment of proteins. Numerous antibodies directed against a wide array of mammalian proteins are used to test each lysate.

This is a clone of the Jurkat-FHCRC cell line, a derivative of the Jurkat cell line. The Jurkat cell line was established from the peripheral blood of a 14 year old boy by Schneider, et al, and was originally designated JM. Clone E6-1 cells produce large amounts of IL-2 after stimulation with phorbol esters and either lectins or monoclonal antibodies against the T3 antigen (both types of stimulants are needed to induce IL-2 production).

REFERENCES

1. Gillis, S. and Watson, J. 1980. Biochemical and biological characterization of lymphocyte regulatory molecules. V. Identification of an interleukin 2-producing human leukemia T cell line. J. Exp. Med. 152: 1709-1719.
2. Weiss, A., et al. 1984. The role of T3 surface molecules in the activation of human T cells: a two-stimulus requirement for IL-2 production reflects events occurring at a pre-translational level. J. Immunol. 133: 123-128.
3. Berninghausen, O. and Leippe, M. 1997. Necrosis versus apoptosis as the mechanism of target cell death induced by *Entamoeba histolytica*. Infect. Immun. 65: 3615-3621.

SOURCE

Jurkat + hydrogen peroxide Cell Lysate is derived from the Jurkat cell line.

Organism:	*Homo sapiens* (human)
Tissue:	Blood
Disease:	Acute T cell leukemia
Cell Type:	T lymphocyte
Morphology:	Lymphoblast
Growth Properties:	Suspension
Treatment:	Hydrogen Peroxide

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

Jurkat + hydrogen peroxide 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.

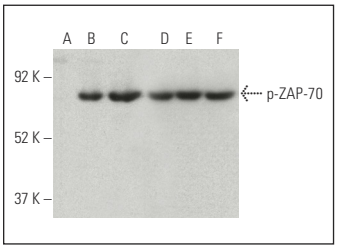
STORAGE

Store at -20º 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



p-ZAP-70 (pY319.17A): sc-136248. Western blot analysis of ZAP-70 phosphorylation in untreated (**A**,**D**), hydrogen peroxide treated (**B**,**E**) and pervanadate treated (**C**,**F**) Jurkat whole cell lysates. Antibodies tested include p-ZAP-70 (pY319.17A): sc-136248 (**A**,**B**,**C**) and ZAP-70 (1E7.2): sc-32760 (**D**,**E**,**F**). Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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.