SANTA CRUZ BIOTECHNOLOGY, INC.

RAW 264.7 + LPS/IFN-γ Cell Lysate: sc-24767

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Santa Cruz Biotechnology Inc. offers whole cell lysates for use in combination with research antibodies as Western Blotting controls. RAW 264.7 is a differentiated monocyte/macrophage, that originates from Abelson murine leukemia virus-induced tumor ascites, BALB/c, Mus musculus (Mouse). RAW 264.7+ LPS/PMA cell lysate is derived from cultured RAW 264.7 cells treated with Lipopolysaccharides (LPS) and PMA (Phorbol myristate acetate), using a preparation method (RIPA Lysis Buffer System (sc-24948)), that ensures protein integrity and lot-to-lot reproducibility. Whole cell lysates are tested by Western Blotting in order to ensure each preparation contains a consistent concentration, and assortment of proteins.

REFERENCES

1. Snyder, R.M., et al. 1897. Cellular interactions of auranofin and a related gold complex with RAW 264.7 macrophages. Biochem. Pharmacol. 36: 647-654.
2. Kong, L., et al. 2019. Overview of RAW264.7 for osteoclastogensis study: Phenotype and stimuli. J. Cell. Mol. Med. 23: 3077-3087.
3. Li, Y.J., et al. 2021. Artificial exosomes for translational nanomedicine. J. Nanobiotechnology 19: 242.
4. Facchin, B.M., et al. 2022. Inflammatory biomarkers on an LPS-induced RAW 264.7 cell model: a systematic review and meta-analysis. Inflamm. Res. 71: 741-758.

SOURCE

Organism:	*Mus musculus* (mouse)
Source:	Abelson murine leukemia virus transformed male BALB/c 1978
Tissue of Origin:	Ascites (tumor)
Cell Type:	monocyte/macrophage
Growth:	Adherent
Treatment:	LPS and IFN-γ

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

RAW 264.7 + LPS/IFN-γ 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.

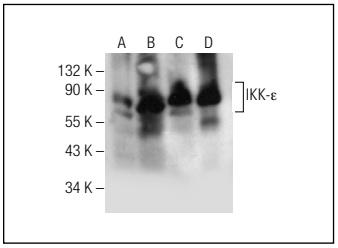
RESEARCH USE

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

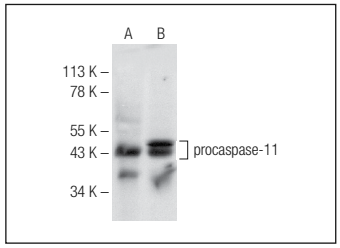
PREPARATION METHOD

RAW 264.7 cells are cultured with appropriate media conditions and allowed to reach a confluency of 75%. Cells are treated 2 hours with lipopolysaccharides (LPS ~0.005 mg/ml) and PMA (phorbol myristate acetate ~40 ng/ml), and lysis is performed with the RIPA Lysis Buffer System (sc-24948). BCA Protein Assay is used to determine total protein concentration. 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



IKK-ε (E-2): sc-374546. Western blot analysis of IKK-ε expression in RAW 309 Cr.1 (**A**), RAW 264.7 (**B**), PMA/LPS treated RAW 264.7 (**C**) and LPS/IFNg treated RAW 264.7 (**D**) whole cell lysates.



caspase-11 (A-2): sc-374615. Western blot analysis of procaspase-11 expression in LPS/IFNγ treated RAW 264.7 (**A**) and C6 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Palladino, M.A., et al. 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.
2. Palladino, M.A., et al. 2008. Localization of Toll-like receptors on epididymal epithelial cells and spermatozoa. Am J Reprod Immunol. 60: 541-555.
3. Zagryazhskaya, A.N., et al. 2010. Nitric oxide mediates distinct effects of various LPS chemotypes on phagocytosis and leukotriene synthesis in human neutrophils. Int. J. Biochem. Cell Biol. 42: 921-931.
4. Gonzalez, D., et al. 2011. Early feeding and dietary lipids affect broiler tissue fatty acids, vitamin E status, and cyclooxygenase-2 protein expression upon lipopolysaccharide challenge. Poult. Sci. 90: 2790-2800.
4. Hussain, R., et al. 2013. Modulation of ENaC, CFTR, and iNOS expression in bronchial epithelial cells after stimulation with *Staphylococcus epidermidis* (94B080) and *Staphylococcus aureus* (90B083). APMIS. 121: 814-26.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.