SANTA CRUZ BIOTECHNOLOGY, INC.

rat brain extract: sc-2392

BACKGROUND

Santa Cruz Biotechnology Inc. offers whole tissue extracts for use in combination with research antibodies as western blotting controls. Rat brain tissue extract is derived from normal, healthy fresh and flash frozen rat brain tissue using a preparation method (RIPA Lysis Buffer System (sc-24948)), that ensures protein integrity and lot-to-lot reproducibility. Tissue extracts are tested by western blotting in order to ensure each preparation contains a consistent concentration, and assortment of proteins.

REFERENCES

1. Bifone, A., et al. 2010. Functional connectivity in the rat brain: a complex network approach. Magn. Reson. Imaging 28: 1200-1209.
2. González-Arenas A., et al. 2014. Sex hormones and expression pattern of cytoskeletal proteins in the rat brain throughout pregnancy. J. Steroid Biochem. Mol Biol. 139: 154-158.
3. Zhang, H.M. and Su, Q. 2014. PKC in developmental hypothyroid rat brain. Neurol. Sci. 35: 1161-1166.
4. Zhu, B., et al. 2014. Isolation and long-term expansion of functional, myelinating oligodendrocyte progenitor cells from neonatal rat brain. Curr. Protoc. Stem Cell Biol. 31: 2D.17.1-15.

SOURCE

rat brain extract is derived from normal, healthy rat brain tissue.

Organism:	*Rattus norvegicus* (Rat, male / female)
Organ:	Normal brain (non-diseased)
Serological Testing:	None / maintained under controlled conditions
Source:	Non immunized, 6-10 weeks, fresh / flash frozen

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

rat brain extract 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

Frozen rat brain tissues are treated with a mechanical tissue grinder and sonification. Tissue is suspended in solution and lysed using the RIPA LysisBuffer System (sc-24948). The tissue extraction is adjusted to contain 500 µg of total cellular protein in 100 µl before adding an equal 100 µl volume of Electrophoresis Sample Buffer, 2X (sc-24945). Final concentration of product is 500 µg total protein in a final volume of 200 µl.

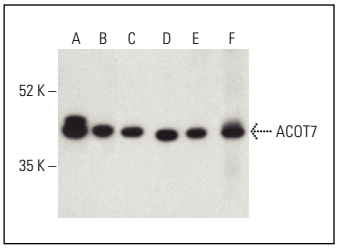
STORAGE

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

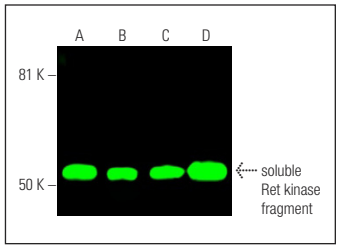
RESEARCH USE

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

DATA



ACOT7 (B-4): sc-376692. Western blot analysis of ACOT7 expression in SK-MEL-28 (**A**), Jurkat (**B**), PC-3 (**C**) and Neuro-2A (**D**) whole cell lysates and mouse brain (**E**) and rat brain (**F**) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Ret (6E4C4): sc-101423. Near-Infrared western blot analysis of Ret expression in SH-SY5Y (**A**), TT (**B**) and C6 (**C**) whole cell lysates and rat brain tissue extract (**D**). Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG$_{2b}$ BP-CFL 680: sc-542749.

SELECT PRODUCT CITATIONS

1. van Rooij, E., et al. 2002. Requirement of nuclear factor of activated T-cells in calcineurin-mediated cardiomyocyte hypertrophy. J. Biol. Chem. 277: 48617-48626.
2. Ermert, M., et al. 2002. Cell-specific nitric oxide synthase-isoenzyme expression and regulation in response to endotoxin in intact rat lungs. Lab Invest. 82: 425-441.
3. Vavaiya, K.V., et al. 2006. Vagal complex monocarboxylate transporter-2 expression during hypoglycemia. Neuroreport 17: 1023-1026.
4. Bianchi, M.G., et al. 2008. C6 glioma cells differentiated by retinoic acid overexpress the glutamate transporter excitatory amino acid carrier 1 (EAAC1). Neuroscience 151: 1042-1052.
5. Liu, P., et al. 2010. G protein-coupled receptor kinase 5, overexpressed in the α-synuclein up-regulation model of Parkinson's disease, regulates bcl-2 expression. Brain Res. 1307: 134-141.
6. Schichor, C., et al. 2012. Mesenchymal stem cells and glioma cells form a structural as well as a functional syncytium *in vitro*. Exp. Neurol. 234: 208-219.
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8. Brown, M.B., et al. 2015. Novel assessment of haemodynamic kinetics with acute exercise in a rat model of pulmonary arterial hypertension. Exp. Physiol. 100: 742-754.
9. Storti, P., et al. 2016. Galectin-1 suppression delineates a new strategy to inhibit myeloma-induced angiogenesis and tumoral growth *in vivo*. Leukemia 30: 2351-2363.

PROTOCOLS

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