

Lipoic Acid (13C5): sc-101354

BACKGROUND

Lipoic Acid, also known as α -lipoic acid, is an organic sulfur-containing fatty acid that consists of a cyclic disulfide and a carboxylic acid. The conjugate base of Lipoic Acid, namely Lipoate, is present under most physiological conditions and, like Lipoic Acid, is essential for aerobic life, participating in various transfer reactions within the pyruvate dehydrogenase complex. Via its essential role in metabolism, Lipoic Acid is thought to function as a neuroprotective agent and an anti-inflammatory compound, providing effective treatment for Alzheimer's disease, Parkinson's disease and multiple sclerosis. Additionally, Lipoic Acid can be used to treat mercury intoxication, as its two thiol groups provide strong chelating activity. Lipoic Acid is a common dietary supplement that is found in a variety of foods, including spinach, potatoes and broccoli, as well as liver, heart and kidney meat.

REFERENCES

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3. Dudek, M., et al. 2008. The role of Lipoic Acid in prevention of nitroglycerin tolerance. *Eur. J. Pharmacol.* 591: 203-210.
4. Ahn, J.H., et al. 2008. Lipoic Acid rescues DBA mice from early-onset age-related hearing impairment. *Neuroreport* 19: 1265-1269.
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7. Maczurek, A., et al. 2008. Lipoic Acid as an anti-inflammatory and neuroprotective treatment for Alzheimer's disease. *Adv. Drug Deliv. Rev.* 60: 1463-1470.
8. Zhang, H., et al. 2010. Combined R- α -Lipoic Acid and acetyl-L-carnitine exerts efficient preventative effects in a cellular model of Parkinson's disease. *J. Cell. Mol. Med.* 14: 215-225.

SOURCE

Lipoic Acid (13C5) is a mouse monoclonal antibody raised against Lipoic Acid.

PRODUCT

Each vial contains 50 μ g IgM in 500 μ l of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Lipoic Acid (13C5) is recommended for detection of free and bound Lipoic Acid by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:2500), immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:2500) and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:100-1:5000); non cross-reactive with dihydrolipoic acid.

RESEARCH USE

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

PROTOCOLS

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