



Leukocyte-type 12-LO (m): 293T Lysate: sc-125542

BACKGROUND

Lipoxygenases are a family of enzymes which dioxygenate unsaturated fatty acids, thus initiating lipoperoxidation of membranes, the synthesis of signaling molecules as well as inducing structural and metabolic changes in the cell. The Lox enzymes in mammals, 12-LO and 15-LO, are classified with respect to their positional specificity of the deoxygenation of their most common substrate, arachidonic acid. The metabolism of arachidonic acid leads to the generation of biologically active metabolites that have been implicated in cell growth and proliferation, as well as survival and apoptosis. The 12-LO pathway is a regulator of cell survival and apoptosis and affects the expression and localization of the Integrin $\alpha V/\beta 5$ and Actin microfilaments in rat Walker 256 carcinosarcoma cells. Platelet-type 12-LO regulates the growth and survival of a number of cancer cells. Human platelets metabolize arachidonic acid via 12-lipoxygenase to 12-hydroxyeicosatetraenoic acid.

REFERENCES

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3. Raso, E., Döme, B., Somlai, B., Zacharek, A., Haggmann, W., Honn, K.V. and Tímár, J. 2004. Molecular identification, localization and function of platelet-type 12-lipoxygenase in human melanoma progression, under experimental and clinical conditions. *Melanoma Research* 14: 245-250.
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5. Kelavkar, U.P. and Cohen, C. 2004. 15-lipoxygenase-1 expression upregulates and activates Insulin-like growth factor-1 receptor in prostate cancer cells. *Neoplasia* 6: 41-52.

CHROMOSOMAL LOCATION

Genetic locus: Alox12 (mouse) mapping to 11 B3.

PRODUCT

Leukocyte-type 12-LO (m): 293T Lysate represents a lysate of mouse Leukocyte-type 12-LO transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Leukocyte-type 12-LO (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Leukocyte-type 12-LO antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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