

15-LO (V-17): sc-27354

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. 15-Lipoxygenase acts in physiological membrane remodeling and the pathogenesis of atherosclerosis, inflammation, and carcinogenesis. It is highly regulated and expressed in a tissue- and cell-type-specific fashion. IL-4 and IL-13 play important roles in transactivating the 15-LO gene. Overexpression of 15-LO type 1 in prostate cancer contributes to the cancer progression by regulating IGF-1R expression and activation.

CHROMOSOMAL LOCATION

Genetic locus: ALOX15 (human) mapping to 17p13.2.

SOURCE

15-LO (V-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of 15-lipoxygenase of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27354 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

15-LO (V-17) is recommended for detection of 15-LO of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

15-LO (V-17) is also recommended for detection of 15-LO in additional species, including canine.

Suitable for use as control antibody for 15-LO siRNA (h): sc-105003, 15-LO shRNA Plasmid (h): sc-105003-SH and 15-LO shRNA (h) Lentiviral Particles: sc-105003-V.

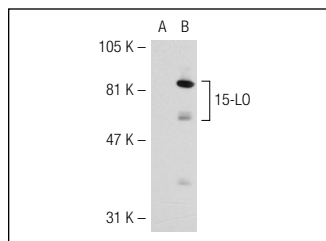
Molecular Weight of 15-LO: 75 kDa.

Positive Controls: 15-LO (h): 293T Lysate: sc-114262 HeLa nuclear extract: sc-2120 or HEK293 whole cell lysate: sc-45136.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



15-LO (V-17): sc-27354. Western blot analysis of 15-LO expression in non-transfected: sc-117752 (A) and human 15-LO transfected: sc-114262 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Wu, S.H., et al. 2009. Elevated expressions of 15-lipoxygenase and lipoxin A4 in children with acute poststreptococcal glomerulonephritis. *Am. J. Pathol.* 174: 115-122.
- Wu, S.H., et al. 2009. Inverse temporal changes of lipoxin A4 and leukotrienes in children with Henoch-Schönlein purpura. *Prostaglandins Leukot. Essent. Fatty Acids* 80: 177-183.

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.

MONOS
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Try **15-LO (B-7): sc-133085**, our highly recommended monoclonal alternative to 15-LO (V-17).