

LOXL2 (F-13): sc-48723

BACKGROUND

Lysyl oxidase (LOX) proteins belong to a family of enzymes that oxidize primary amine substrated to reactive aldehydes. In fibrillar collagens and elastin, LOX catalyzes the lysine-derived cross-links of collagen fibrils and insoluble elastic fibers in the extracellular matrix. It can localize both to the nucleus and the cytoplasm. LOX is involved in tumor suppression, cell motility, cellular senescence and developmental regulation. There are four homologs of LOX, lysyl oxidase-like proteins, designated LOX-like (LOXL1-LOXL4) proteins. LOXL2 is an extracellular protein that localizes specifically to sites of elastogenesis. It serves as a cross-linking enzyme, controlling the deposition of elastin and interacts with fibulin-5. LOXL2 and LOXL3 can interact and cooperate with the snail protein to downregulate E-cadherin expression. In epithelial cells, overexpression of LOXL2 or LOXL3 may induce an epithelial-mesenchymal transitions process, an important element in tumor progression. Knockdown of the LOXL2 protein significantly decreases tumor growth.

CHROMOSOMAL LOCATION

Genetic locus: LOXL2 (human) mapping to 8p21.3; Loxl2 (mouse) mapping to 14 D2.

SOURCE

LOXL2 (F-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LOXL2 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-515648 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

LOXL2 (F-13) is recommended for detection of LOXL2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LOXL2 (F-13) is also recommended for detection of LOXL2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for LOXL2 siRNA (h): sc-45222, LOXL2 siRNA (m): sc-45223, LOXL2 siRNA (r): sc-270399, LOXL2 shRNA Plasmid (h): sc-45222-SH, LOXL2 shRNA Plasmid (m): sc-45223-SH, LOXL2 shRNA Plasmid (r): sc-270399-SH, LOXL2 shRNA (h) Lentiviral Particles: sc-45222-V, LOXL2 shRNA (m) Lentiviral Particles: sc-45223-V and LOXL2 shRNA (r) Lentiviral Particles: sc-270399-V.

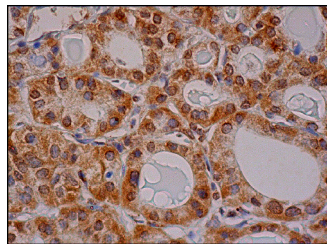
Molecular Weight of LOXL2: 95 kDa.

Molecular Weight of LOXL2 proteolytically processed peptide: 63 kDa.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



LOXL2 (F-13): sc-48723. Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing cytoplasmic and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Steplewski, A., et al. 2016. Auxiliary proteins that facilitate formation of collagen-rich deposits in the posterior knee capsule in a rabbit-based joint contracture model. *J. Orthop. Res.* 34: 489-501.

STORAGE

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

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
Satisfaction
Guaranteed

Try **LOXL2 (3C5): sc-293427**, our highly recommended monoclonal alternative to LOXL2 (F-13).