BACKGROUND

The lysyl oxidase family of extracellular proteins includes LOX and four LOX-like enzymes, which are responsible for the deamination of peptidyl lysine residues of collagens and elastin. They also catalyze inter- and intracrosslinking reactions. Overexpression of LOX may cause severe fibrotic degeneration due to its high resistance to degradative enzymes. Procollagen C-proteinase activity processes LOX from a precursor protein to a mature form. Activation of LOX occurs in normal developing and adult skin, and alterations in LOX expression and activity are associated with skin aging and senescence. LOX is crucial for development of the cardiovascular and respiratory systems. In addition, LOX plays a role in cancer, wound healing, as well as cell motility, chemotaxis and differentiation.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: LOX (human) mapping to 5q23.2; Lox (mouse) mapping to 18 D1.

SOURCE

LOX (F-8) is a mouse monoclonal antibody raised against a peptide mapping within an internal region of LOX of human origin.

PRODUCT

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LOX (F-8) is available conjugated to agarose (sc-373995 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373995 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-373995 PE), fluorescein (sc-373995 FITC), Alexa Fluor® 488 (sc-373995 AF488) or Alexa Fluor® 647 (sc-373995 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-373995 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

LOX (F-8) is recommended for detection of Lysyl oxidase (LOX) of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

LOX (F-8) is also recommended for detection of Lysyl oxidase (LOX) in additional species, including canine and porcine.

Molecular Weight of LOX proenzyme: 50 kDa.

Molecular Weight of mature LOX: 30 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260, JEG-3 whole cell lysate: sc-364255 or MCF7 whole cell lysate: sc-2206.

DATA

LOX (F-8): sc-373995. Western blot analysis of LOX expression in WI-38 (A) and MCF7 (B) whole cell lysates.

LOX (F-8): sc-373995. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic and nuclear staining of epidermal cells (A). Immunofluorescence staining of formalin-fixed Hep G2 cells showing cell surface localization (B).

SELECT PRODUCT CITATIONS


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.