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LOXL3 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP12837b

Specification

LOXL3 Antibody (C-term) Blocking peptide - Product Information

Primary Accession P58215

LOXL3 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 84695

Other Names
Lysyl oxidase homolog 3, 143-, Lysyl oxidase-like protein 3, LOXL3, LOXL

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

LOXL3 Antibody (C-term) Blocking peptide - Protein Information

Name LOXL3 {ECO:0000303|PubMed:11386757, ECO:0000312|HGNC:HGNC:13869}

Function
Protein-lysine 6-oxidase that mediates the oxidation of peptidyl lysine residues to allysine in target proteins (PubMed:17018530, PubMed:28065600). Catalyzes the post-translational oxidative deamination of peptidyl lysine residues in precursors of elastin and different types of collagens, a prerequisite in the formation of cross-links between collagens and elastin (PubMed:17018530). Required for somite boundary formation by catalyzing oxidation of fibronectin (FN1), enhancing integrin signaling in myofibers and their adhesion to the myotendinous junction (MTJ) (By similarity). Acts as a regulator of inflammatory response by inhibiting differentiation of naive CD4(+) T-cells into T-helper Th17 or regulatory T-cells (Treg): acts by interacting with STAT3 in the nucleus and catalyzing both deacetylation and oxidation of lysine residues on STAT3, leading to disrupt STAT3 dimerization and inhibit STAT3 transcription activity (PubMed:28065600). Oxidation of lysine residues to allysine on STAT3 preferentially takes place on lysine residues that are acetylated (PubMed:28065600). Also able to catalyze deacetylation of lysine residues on STAT3 (PubMed:28065600).

Cellular Location
Secreted, extracellular space {ECO:0000250|UniProtKB:Q9Z175}. Cytoplasm. Nucleus Note=It is unclear how LOXL3 is both intracellular (cytoplasmic and nuclear) and extracellular: it contains a clear signal sequence and is predicted to localize in the extracellular medium. However, the intracellular location is clearly reported and at least another protein of the family (LOXL2) also has intracellular and extracellular localization despite the presence of a signal sequence (PubMed:28065600). [Isoform 2]: Cytoplasm. Secreted, extracellular space

Tissue Location
Isoform 1: Predominantly detected in the heart, placenta, lung, and small intestine (PubMed:17018530). Isoform 2: Highly detected in the kidney, pancreas, spleen, and thymus, and is absent in lung (PubMed:17018530). In eye, present in all layers of corneas as well as in the limbus and conjunctiva (at protein level) (PubMed:26218558).

LOXL3 Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

LOXL3 Antibody (C-term) Blocking peptide - Images

LOXL3 Antibody (C-term) Blocking peptide - Background

This gene encodes a member of the lysyl oxidase genefamily. The prototypic member of the family is essential to thebiogenesis of connective tissue, encoding an extracellularcopper-dependent amine oxidase that catalyses the first step in theformation of crosslinks in collagens and elastin. A highlyconserved amino acid sequence at the C-terminus end appears to besufficient for amine oxidase activity, suggesting that each familymember may retain this function. The N-terminus is poorly conservedand may impart additional roles in developmental regulation,senescence, tumor suppression, cell growth control, and chemotaxisto each member of the family. Alternatively spliced transcriptvariants of this gene have been reported but their full-lengthnature has not been determined.

LOXL3 Antibody (C-term) Blocking peptide - References

Kim, Y., et al. Oncol. Rep. 22(4):799-804(2009)Sebban, S., et al. Virchows Arch. 454(1):71-79(2009)Akagawa, H., et al. Hum. Genet. 121 (3-4), 377-387 (2007) :Lee, J.E., et al. J. Biol. Chem. 281(49):37282-37290(2006)Peinado, H., et al. EMBO J. 24(19):3446-3458(2005)