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LOXL3 Rabbit pAb

Catalog # AP99740

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	P58215
Other Accession	P58215
Predicted	Pig, Human, Mouse, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	83166
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human LOXL3
Epitope Specificity	251-350/753
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the lysyl oxidase family. Contains 4 SRCR domains.
Post-translational modifications	The lysine tyrosylquinone cross-link (LTQ) is generated by condensation of the epsilon-amino group of a lysine with a topaquinone produced by oxidation of tyrosine.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the lysyl oxidase gene family. The prototypic member of the family is essential to the biogenesis of connective tissue, encoding an extracellular copper-dependent amine oxidase that catalyses the first step in the formation of crosslinks in collagens and elastin. A highly conserved amino acid sequence at the C-terminus end appears to be sufficient for amine oxidase activity, suggesting that each family member may retain this function. The N-terminus is poorly conserved and may impart additional roles in developmental regulation, senescence, tumor suppression, cell growth control, and chemotaxis to each member of the family. Alternatively spliced transcript variants of this gene have been reported but their full-length nature has not been determined. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	84695
Other Names	LOXL; MYP28; LOXL3_HUMAN; LOXL3; Lysyl oxidase-like protein 3; 1.4.3.-; 1.4.3.13; lysyl oxidase like 3; lysyl oxidase-like 3
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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).

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