

Synonym

Lysyl oxidase homolog 2, LOXL2

Source

Human LOXL2, Fc Tag (LO2-H525x) is expressed from human 293 cells (HEK293). It contains AA Gln 26 - Gln 774 (Accession # NP_002309).

Predicted N-terminus: Gln 26

Molecular Characterization

LOXL2(Gln 26 - Gln 774) NP_002309	Fc(Pro 100 - Lys 330) P01857
--------------------------------------	---------------------------------

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 111.6 kDa. As a result of Glycosylation, the protein migrates as 120-130 kDa under reducing (R) condition, and 200-240 kDa under non-reducing (NR) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>75% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

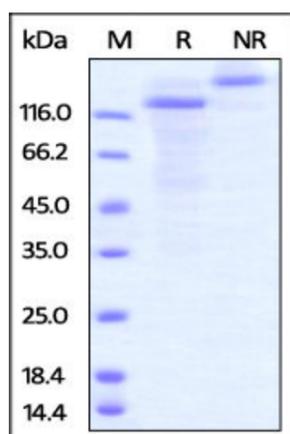
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

No activity loss was observed after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human LOXL2, Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 75%.

Background

Lysyl oxidase homolog 2 is also known as LOXL2, Lysyl oxidase-like protein 2, which is expressed in many tissues, highest expression in reproductive tissues, placenta, uterus and prostate, Up-regulated in a number of cancers cells and tissues. LOXL2 mediates the post-translational oxidative deamination of lysine residues on target proteins leading to the formation of deaminated lysine (allysine). When secreted in extracellular matrix, promotes cross-linking of extracellular matrix proteins by mediating oxidative deamination of peptidyl lysine residues in precursors to fibrous collagen and elastin. LOXL2 acts as a regulator of sprouting angiogenesis, probably via collagen IV scaffolding. When nuclear, acts as a transcription corepressor and specifically mediates deamination of trimethylated 'Lys-4'

of histone H3 (H3K4me3), a specific tag for epigenetic transcriptional activation. LOXL2 acts as a regulator of chondrocyte differentiation, probably by regulating expression of factors that control chondrocyte differentiation.

References

- (1) [Ota T, et al., 2004, Nat. Genet. 36:40-45.](#)
- (2) [Jourdan-Le Saux C, et al., 1999, J. Biol. Chem. 274:12939-12944.](#)
- (3) [Lugassy J, et al., 2012, J. Biol. Chem. 287:3541-3549.](#)

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.