Biotinylated Human LOXL2 Protein, His,Avitag™ (active enzyme)

Catalog # LO2-H82E3

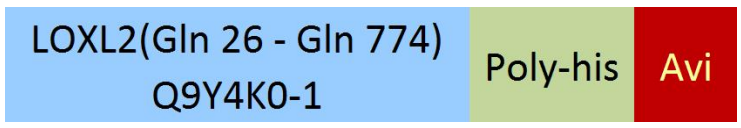
Synonym

Lysyl oxidase homolog 2,LOXL2

Source

Biotinylated Human LOXL2, His,Avitag(LO2-H82E3) is expressed from human 293 cells (HEK293). It contains AA Gln 26 - Gln 774 (Accession # Q9Y4K0-1). Predicted N-terminus: Gln 26

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 87.6 kDa. The protein migrates as 90-110 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>90% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μm filtered solution in 20 mM MES, 50 mM NaCl, pH6.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

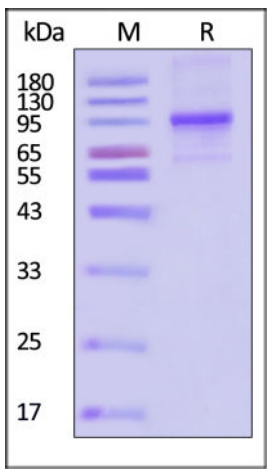
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



Biotinylated Human LOXL2, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity

Measured by its ability to produce hydrogen peroxide during the oxidation of benzylamine. The specific activity is >7 pmol/min/μg (QC tested).

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.