Recombinant Human PLOD2

Cat. No. PLOD2-31030TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length mature Human PLOD2, isoform 2 with N terminal proprietary tag. Predicted MW 106.63 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	732 amino acids
Description	The protein encoded by this gene is a membrane-bound homodimeric enzyme that is localized to the cisternae of the rough endoplasmic reticulum. The enzyme (cofactors iron and ascorbate) catalyzes the hydroxylation of lysyl residues in collagen-like peptides. The resultant hydroxylysyl groups are attachment sites for carbohydrates in collagen and thus are critical for the stability of intermolecular crosslinks. Some patients with Ehlers-Danlos syndrome type VIB have deficiencies in lysyl hydroxylase activity. Mutations in the coding region of this gene are associated with Bruck syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms.
Molecular Weight	106.630kDa inclusive of tags
Tissue specificity	Highly expressed in pancreas and muscle. Isoform 1 and isoform 2 are expressed in the majority of the examined cell types. Isoform 2 is specifically expressed in skin, lung, dura and aorta.

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Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	DSEKPSSIPTDKLLVITVATKESDGFHRFMQSAKYFNYTV KVLGQGEEWRGGDGIN SIGGGQKVRLMKEVMEHYADQDDL VVMFTECFDVIFAGGPEEVLKKFQKANHKVV FAADGILWP DKRLADKYPVVHIGKRYLNSGGFIGYAPYVNRIVQQWNLQ DNDDDQ LFYTKVYIDPLKREAINITLDHKCKIFQTLNGAV DEVVLKFENGKARAKNTFYETLPVA INGNGPTKILLNYFG NYVPNSWTQDNGCTLCEFDTVDLSAVDVHPNVSIGVFIEQ PT PFLPRFLDILLTLDYPKEALKLFIHNKEVYHEKDIKVF FDKAKHEIKTIKIVGPEENLSQ AEARNMGMDFCRQDEKCD YYFSVDADVVLTNPRTLKILIEQNRKIIAPLVTRHGKLW S NFWGALSPDGYYARSEDYVDIVQGNRVGVWNVPYMANVYL IKGKTLRSEMNER NYFVRDKLDPDMALCRNAREMTLQREK DSPTPETFQMLSPPKGVFMYISNRHEFG RLLSTANYNTSH YNNDLWQIFENPVDWKEKYINRDYSKIFTENIVEQPCPDV FWFPI FSEKACDELVEEMEHYGKWSGGKHHDSRISGGYEN VPTDDIHMKQVDLENVWLHF IREFIAPVTLKVFAGYYTKG FALLNFVVKYSPERQRSLRPHHDASTFTINIALNNVGE DF QGGGCKFLRYNCSIESPRKGWSFMHPGRLTHLHEGLPVKN GTRYIAVSFIDP
Sequence Similarities	Contains 1 Fe2OG dioxygenase domain.

GENE INFORMATION

Gene Name	PLOD2 procollagen-lysine, 2-oxoglutarate 5-dioxygenase 2 [Homo sapiens]
Official Symbol	PLOD2

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Synonyms	PLOD2; procollagen-lysine, 2-oxoglutarate 5-dioxygenase 2; procollagen lysine, 2 oxoglutarate 5 dioxygenase (lysine hydroxylase) 2; procollagen-lysine,2-oxoglutarate 5-dioxygenase 2; LH2; lysyl hydroxlase 2;
Gene ID	5352
mRNA Refseq	NM_000935
Protein Refseq	NP_000926
MIM	601865
Uniprot ID	O00469
Chromosome Location	3q24
Pathway	Lysine degradation, organism-specific biosystem; Lysine degradation, conserved biosystem;
Function	L-ascorbic acid binding; iron ion binding; metal ion binding; oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen, 2-oxoglutarate as one donor, and incorporation of one atom each of oxygen into both donors;

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