# PLOD2 Monoclonal Antibody

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| **Catalog No** | YP-mAb-07237 |
| **Isotype** | IgG |
| **Reactivity** | Human;Rat;Mouse |
| **Applications** | WB |
| **Gene Name** | PLOD2 |
| **Protein Name** | Procollagen-lysine,2-oxoglutarate 5-dioxygenase 2 (EC 1.14.11.4) (Lysyl hydroxylase 2) (LH2) |
| **Immunogen** | Synthesized peptide derived from human protein . at AA range: 600-680 |
| **Specificity** | PLOD2 Monoclonal Antibody detects endogenous levels of protein. |
| **Formulation** | Liquid in PBS containing 50% glycerol, and 0.02% sodium azide. |
| **Source** | Monoclonal, Mouse,IgG |
| **Purification** | The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Dilution** | WB 1:500-1:2000 |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | |
| **Observed Band** | 81kD |
| **Cell Pathway** | Rough endoplasmic reticulum membrane; Peripheral membrane protein; Lumenal side. |
| **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. |
| **Function** | catalytic activity:Procollagen L-lysine + 2-oxoglutarate + O(2) = procollagen 5-hydroxy-L-lysine + succinate + CO(2).,cofactor:Ascorbate.,cofactor:Iron.,disease:Defects in PLOD2 are the cause of Bruck syndrome 2 (BRKS2) [MIM:609220]. Bruck syndrome [MIM:259450], also known as osteogenesis imperfecta with congenital joint contractures, is an autosomal recessive disease characterized by generalized osteopenia, joint contractures at birth, fragile bones and short stature. It can be distinguished from osteogenesis imperfecta by the absence of hearing loss and dentinogenesis imperfecta, and by the presence of clubfoot and congenital joint limitations. The molecular defect is an aberrant cross-linking of bone collagen, due to underhydroxylation of lysine residues within the telopeptides of type I collagen, whereas the lysine residues in the triple helix are normal.,function:Forms hydroxylysine |

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| **Background** | 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. [provided by RefSeq, Jul 2008], |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |

## Products Images