



PLOD2 Polyclonal Antibody

Catalog No	YP-Ab-07237
Isotype	IgG
Reactivity	Human;Rat;Mouse
Applications	WB;ELISA
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 Polyclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000 ELISA 1:5000-20000
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; Luminal 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

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