SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-PLOD2/AP Conjugated antibody

SL12731R-AP

Product Name	Anti-PLOD2/AP
Chinese Name	碱性磷酸酶（AP）标记的赖氨酸羟化酶 2 抗体
Alias	2-oxoglutarate 5-dioxygenase 2; LH2; Lysine hydroxylase 2; Lysyl hydroxylase 2; OTTHUMP00000215204; OTTHUMP00000215205; OTTHUMP00000215206; PLOD 2; Plod2; PLOD2_HUMAN; Procollagen lysine 2 oxoglutarate 5 dioxygenase 2; Procollagen lysine, 2 oxoglutarate 5 dioxygenase (lysine hydroxylase) 2; Procollagen-lysine; Telopeptide lysyl hydroxylase; TLH.
Research Area	Tumour Cell biology Signal transduction
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted:Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep)
Applications	IHC-P=1:100-500,IHC-F=1:100-500,ELISA=1:500-5000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	85kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human PLOD2
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**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]

Function:
Forms hydroxylysine residues in -Xaa-Lys-Gly- sequences in collagens. These hydroxylysines serve as sites of attachment for carbohydrate units and are essential for the stability of the intermolecular collagen cross-links.

Subcellular Location:
Rough endoplasmic reticulum membrane.

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.

DISEASE:
Defects in PLOD2 are the cause of Bruck syndrome type 2 (BRKS2) [MIM:609220]. Bruck syndrome, 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.

Similarity:
Contains 1 Fe2OG dioxygenase domain.

Database links:

Entrez Gene: 5352 Human

Entrez Gene: 26432 Mouse

Entrez Gene: 300901 Rat

Omim: 601865 Human

SwissProt: O00469 Human

SwissProt: Q9R0B9 Mouse

SwissProt: Q811A3 Rat

Unigene: 477866 Human

Unigene: 79983 Mouse

Unigene: 12945 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.