Cleaved COL1A2 (Gly1102) Rabbit pAb

CatalogNo: YC0049 **Orthogonal Validated**

Key Features

Host Species
- Rabbit

Reactivity
- Human,Rat,Mouse,

Applications
- WB,ELISA

MW
- 92kD (Observed)

Isotype
- IgG

Recommended Dilution Ratios

WB 1:500-1:2000
ELISA 1:10000
Not yet tested in other applications.

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human Collagen I alpha2. AA range:1053-1102
Specificity	Cleaved-COL1A2 (G1102) Polyclonal Antibody detects endogenous levels of fragment of activated COL1A2 protein resulting from cleavage adjacent to G1102.

Target Information

Gene name COL1A2

Protein Name Collagen alpha-2(I) chain

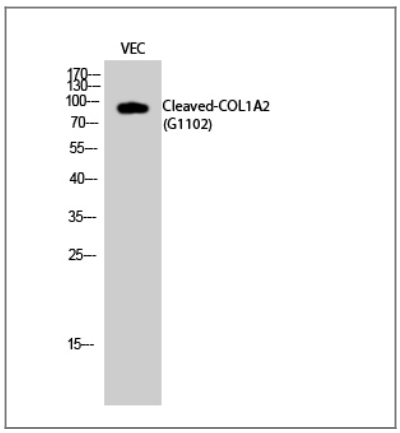
Organism	Gene ID	UniProt ID
Human	1278;	P08123;
Mouse		Q01149;

Cellular Localization Secreted, extracellular space, extracellular matrix .

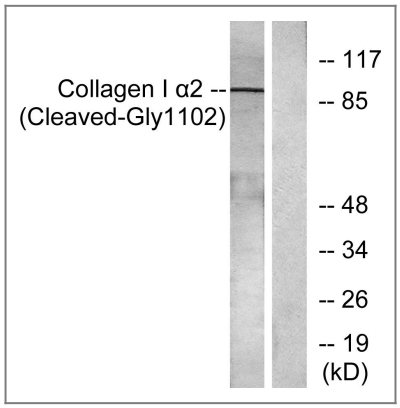
Tissue specificity Forms the fibrils of tendon, ligaments and bones. In bones the fibrils are mineralized with calcium hydroxyapatite.

Function Disease:A chromosomal rearrangement involving COL1A2 may be a cause of lipoblastomas, which are benign tumors resulting from transformation of adipocytes, usually diagnosed in children. Translocation t(7;8)(p22;q13) with PLAG1.,Disease:Defects in COL1A2 are a cause of osteogenesis imperfecta type I (OI-I) [MIM:166200]. OI-I is a dominantly inherited serious newborn disease characterized by bone fragility, normal stature, little or no deformity, blue sclerae and hearing loss in 50% of families. Dentinogenesis imperfecta is rare and may distinguish a subset of OI type I (formation of dentine).,Disease:Defects in COL1A2 are a cause of osteogenesis imperfecta type II (OI-II) [MIM:166210]; also known as osteogenesis imperfecta congenita (OIC) or lethal perinatal. OI-II is a serious newborn disease that diffusely affects bone. Infants are born with multiple fractures, which lead to shortening of the extremities. The skull is soft, and resembles a "bag of bones" when palpated, the sclera are abnormally thin and may appear blue, and some infants also have a hearing loss. Infants born alive often die suddenly during the first few days or weeks of life, but a few survive as deformed dwarfs. Mental development is normal unless head trauma with CNS injury occurs. There is no effective treatment.,Disease:Defects in COL1A2 are a cause of osteogenesis imperfecta type III (OI-III) [MIM:259420]. OI-III usually presents with moderate deformity at birth, progressively deforming bones, and sclerae variable in color. Dentinogenesis imperfecta and hearing loss are common. Stature is very short.,Disease:Defects in COL1A2 are a cause of osteogenesis imperfecta type IV (OI-IV) [MIM:166220]; also known as osteogenesis imperfecta with normal sclerae. OI-IV presents with moderate to mild deformity and variable short stature. Dentinogenesis imperfecta is common and hearing loss occurs in some.,Disease:Defects in COL1A2 are the cause of cardiac valvular form of autosomal recessive Ehlers-Danlos syndrome (cardiac valvular EDS) [MIM:225320]; also known as arthrochalasis type Ehlers-Danlos syndrome. In addition to joint laxity, skin hyperextensibility and friability, and abnormal scar formation, individuals with this form of EDS appear to be at increased risk for cardiac valvular dysfunction.,Disease:Defects in COL1A2 are the cause of Ehlers-Danlos syndrome type 7B (EDS7B) [MIM:130060]. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS7B is marked by bilateral congenital hip dislocation, hyperlaxity of the joints, and recurrent partial dislocations.,Function:Type I collagen is a member of group I collagen (fibrillar forming collagen).,online information:Collagen type I alpha-2 chain mutations,PTM:Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.,similarity:Belongs to the fibrillar collagen family.,subunit:Trimers of one alpha 2(I) and two alpha 1(I) chains.,tissue specificity:Forms the fibrils of tendon, ligaments and bones. In bones the fibrils are mineralized with calcium hydroxyapatite.,

Validation Data



Western Blot analysis of VEC cells using Cleaved-COL1A2 (G1102) Polyclonal Antibody diluted at 1:1000



Western blot analysis of lysates from Jurkat cells, treated with etoposide 25uM 24h, using Collagen I alpha2 (Cleaved-Gly1102) Antibody. The lane on the right is blocked with the synthesized peptide.

Contact information

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Please scan the QR code to access additional product information: **Cleaved COL1A2 (Gly1102) Rabbit pAb**