



# Collagen I $\alpha$ 1 (Cleaved-Ala1218) mouse mAb

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| <b>Catalog No</b>                  | YP-mAb-04378                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Reactivity</b>                  | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Applications</b>                | WB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Gene Name</b>                   | COL1A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Immunogen</b>                   | Synthesized peptide derived from human Collagen I $\alpha$ 1 (Cleaved-Ala1218)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Specificity</b>                 | This antibody detects endogenous levels of Human,Mouse,Rat Collagen I $\alpha$ 1 (Cleaved-Ala1218, protein was cleaved amino acid sequence between 1218-1219 )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>                      | Monoclonal, Mouse,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Purification</b>                | The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Dilution</b>                    | WB 1:500-1:2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Purity</b>                      | $\geq 90\%$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Synonyms</b>                    | Collagen I;COL1A1;Collagen I $\alpha$ 1 (Cleaved-Ala1218);Collagen alpha-1(I) chain (Alpha-1 type I collagen)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Observed Band</b>               | 135 160kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Calculated Molecular Weight</b> | 135 160kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Cell Pathway</b>                | Secreted, extracellular space, extracellular matrix .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Tissue Specificity</b>          | Forms the fibrils of tendon, ligaments and bones. In bones the fibrils are mineralized with calcium hydroxyapatite.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Function</b>                    | disease:A chromosomal aberration involving COL1A1 is a cause of dermatofibrosarcoma protuberans (DFSP) [MIM:607907]. Translocation t(17;22) (q22;q13) with PDGF. DFSP is an uncommon, locally aggressive, but rarely metastasizing tumor of the deep dermis and subcutaneous tissue. It typically occurs during early or middle adult life and is most frequently located on the trunk and proximal extremities.,disease:Defects in COL1A1 are a cause of Ehlers-Danlos syndrome type 1 (EDS1) [MIM:130000]; also known as Ehlers-Danlos syndrome gravis. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint |



hyperlaxity. EDS1 is the severe form of classic Ehlers-Danlos syndrome., disease:Defects in COL1A1 are a cause of osteogenesis imperfecta type I (OI-I) [MIM:166200]. OI-I is a dominantly inherited serious newborn disease character

**Background**

This gene encodes the pro-alpha1 chains of type I collagen whose triple helix comprises two alpha1 chains and one alpha2 chain. Type I is a fibril-forming collagen found in most connective tissues and is abundant in bone, cornea, dermis and tendon. Mutations in this gene are associated with osteogenesis imperfecta types I-IV, Ehlers-Danlos syndrome type VIIA, Ehlers-Danlos syndrome Classical type, Caffey Disease and idiopathic osteoporosis. Reciprocal translocations between chromosomes 17 and 22, where this gene and the gene for platelet-derived growth factor beta are located, are associated with a particular type of skin tumor called dermatofibrosarcoma protuberans, resulting from unregulated expression of the growth factor. Two transcripts, resulting from the use of alternate polyadenylation signals, have been identified for this gene. [provided by R. Dalgleish, Feb 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**