Best Tools for immunology Research

Collagen II mouse Monoclonal Antibody(7F9)

Catalog No :	YM3793
Reactivity :	Human;Mouse;Rat
Applications :	IHC;IF
Target :	Collagen II
Fields :	>>PI3K-Akt signaling pathway;>>Focal adhesion;>>ECM-receptor interaction;>>Protein digestion and absorption;>>Human papillomavirus infection
Gene Name :	COL2A1
Protein Name :	Collagen alpha-1(II) chain (Alpha-1 type II collagen) [Cleaved into: Collagen alpha-1(II) chain; Chondrocalcin]
Human Gene Id :	1280
Human Swiss Prot No :	P02458
Mouse Swiss Prot No :	P28481
Rat Swiss Prot No :	P05539
Immunogen :	Synthetic Peptide of Collagen II
Specificity :	The antibody detects endogenous Collagen II protein
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	IHC 1:50-300. IF 1:50-200
Purification :	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 142kD

Cell Pathway : Focal adhesion;ECM-receptor interaction;

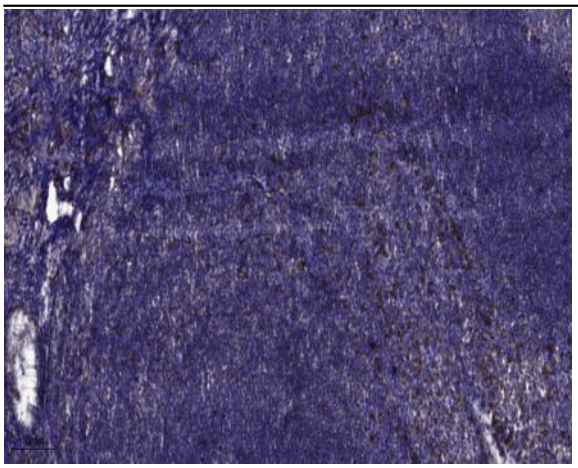
Background : This gene encodes the alpha-1 chain of type II collagen, a fibrillar collagen found in cartilage and the vitreous humor of the eye. Mutations in this gene are associated with achondrogenesis, chondrodysplasia, early onset familial osteoarthritis, SED congenita, Langer-Saldino achondrogenesis, Kniest dysplasia, Stickler syndrome type I, and spondyloepimetaphyseal dysplasia Strudwick type. In addition, defects in processing chondrocalcin, a calcium binding protein that is the C-propeptide of this collagen molecule, are also associated with chondrodysplasia. There are two transcripts identified for this gene. [provided by RefSeq, Jul 2008],

Function : disease:Defects in COL2A1 are a cause of primary avascular necrosis of femoral head (ANFH) [MIM:608805]; also called ischemic necrosis of the femoral head or osteonecrosis of the femoral head. ANFH causes disability that often requires surgical intervention. Most cases are sporadic, but families in which there is an autosomal dominant inheritance of the disease have been identified. It has been estimated that 300,000 to 600,000 people in the United States have ANFH. Approximately 15,000 new cases of this common and disabling disorder are reported annually. The age at the onset is earlier than that for osteoarthritis. The diagnosis is typically made when patients are between the ages of 30 and 60 years. The clinical manifestations, such as pain on exertion, a limping gait, and a discrepancy in leg length, cause considerable disability. Moreover, nearly 10 percent of the 500,000 total-hip

Subcellular Location : Secreted, extracellular space, extracellular matrix .

Expression : Isoform 2 is highly expressed in juvenile chondrocyte and low in fetal chondrocyte.

Products Images



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).