Product Name: COL9A1 Rabbit Polyclonal Antibody
Catalog #: APRab09200
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:10000
Molecular Weight	120kDa

Antigen Information

Gene Name	COL9A1
Alternative Names	COL9A1; Collagen alpha-1(IX) chain
Gene ID	1297.0
SwissProt ID	P20849
Immunogen	Synthesized peptide derived from COL9A1 . at AA range: 390-470

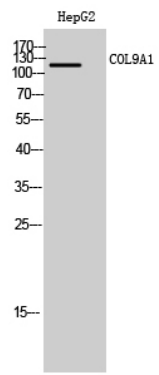
Background

This gene encodes one of the three alpha chains of type IX collagen, which is a minor (5-20%) collagen component of hyaline cartilage. Type IX collagen is usually found in tissues containing type II collagen, a fibrillar collagen. Studies in knockout mice

have shown that synthesis of the alpha 1 chain is essential for assembly of type IX collagen molecules, a heterotrimeric molecule, and that lack of type IX collagen is associated with early onset osteoarthritis. Mutations in this gene are associated with osteoarthritis in humans, with multiple epiphyseal dysplasia, 6, a form of chondrodysplasia, and with Stickler syndrome, a disease characterized by ophthalmic, orofacial, articular, and auditory defects. Two transcript variants that encode different isoforms have been identified for this gene. [provided by RefSeq, Jul 2008],alternative products:Additional isoforms seem to exist,disease:Defects in COL9A1 are a cause of COL9A1-related multiple epiphyseal dysplasia (COL9A1-MED) [MIM:120210].,disease:Defects in COL9A1 are the cause of Stickler syndrome autosomal recessive COL9A1-related (COL9A1ARSTL) [MIM:120210]. COL9A1ARSTL is an autosomal recessive form of Stickler syndrome, an inherited disorder that associates ocular signs with more or less complete forms of Pierre Robin sequence, bone disorders and sensorineural deafness. Ocular disorders may include juvenile cataract, myopia, strabismus, vitreoretinal or chorioretinal degeneration, retinal detachment, and chronic uveitis. Robin sequence includes an opening in the roof of the mouth (a cleft palate), a large tongue (macroglossia), and a small lower jaw (micrognathia). Bones are affected by slight platyspondylisis and large, often defective epiphyses. Juvenile joint laxity is followed by early signs of arthrosis. The degree of hearing loss varies among affected individuals and may become more severe over time. Syndrome expressivity is variable.,domain:Each subunit is composed of three triple-helical domains interspersed with non-collagenous domains. The globular domain at the N-terminus of type IX collagen molecules represents the NC4 domain which may participate in electrostatic interactions with polyanionic glycosaminoglycans in cartilage.,function:Structural component of hyaline cartilage and vitreous of the eye.,PTM:Covalently linked to the telopeptides of type II collagen by lysine-derived cross-links.,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 fibril-associated collagens with interrupted helices (FACIT) family.,similarity:Contains 1 TSP N-terminal (TSPN) domain.,subunit:Heterotrimer of an alpha 1(IX), an alpha 2(IX) and an alpha 3(IX) chain.,

Research Area

Image Data



Western Blot analysis of HepG2 cells using COL9A1 Polyclonal Antibody