

## Product datasheet for **BM332**

### Collagen II (COL2A1) Mouse Monoclonal Antibody [Clone ID: 2G2/49 (COLL-II)]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	2G2/49 (COLL-II)
Applications:	ELISA, IF, WB
Recommended Dilution:	<b>ELISA:</b> 1/100-1/500. <b>Western blotting:</b> 1/1000-1/2000. <b>Immunofluorescence:</b> Neat-1/5. Suitable for use on Fresh, Frozen or Acetone fixed material. Mild pepsin digestion is recommended to enhance staining.
Reactivity:	Bovine, Canine, Human, Mouse, Porcine, Rat, Sheep
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human cartilage specific CNBr-cleaved Collagen II
Specificity:	Reacts with both pepsin solubilised and CNBr-cleaved Human and Bovine Collagen type II. No-cross reactivity is seen with types I, III, V or IX. <b>Species Cross-Reactivity:</b> Rat, Bovine, Sheep, Mouse, Dog, Pig.
Formulation:	State: Ascites State: Liquid Ascites without preservatives Stabilizer: None Preservative: None
Conjugation:	Unconjugated
Storage:	Upon receipt, store undiluted (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	collagen type II alpha 1 chain
Database Link:	<a href="#">Entrez Gene 12824 Mouse</a> <a href="#">Entrez Gene 25412 Rat</a> <a href="#">Entrez Gene 1280 Human P02458</a>



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**Background:**

Collagens are highly conserved throughout evolution and are characterized by an uninterrupted "Glycine-X-Y" triplet repeat that is a necessary part of the triple helical structure. For these reasons it is often extremely difficult to generate antibodies with specificities to collagens. The development of type specific antibodies is dependent on NON DENATURED three dimensional epitopes. This may result in diminished reactivity of some antibodies with denatured collagen or formalin fixed, paraffin embedded tissues. Type II collagen is a fibrillar collagen found in cartilage and the vitreous humor of the eye. Collagen type II is essential for the normal embryonic development of the skeleton, for linear growth and for the ability of cartilage to resist compressive forces. 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.

**Synonyms:**

COL2A1, Alpha-1 type II collagen

**Protein Pathways:**

ECM-receptor interaction, Focal adhesion