

Product number #11310

Human Anti-COL2A1 Antibody (CIIC1)

Description

Affinity purified chimeric human-mouse monoclonal anti collagen II (COL2A1) antibody clone CIIC1 in PBS, filtered (0,2µm). The CIIC1 antibody binds specifically to the C1 epitope on triple helical type 2 collagen. This clone has been used in applications including ELISA, immunohistochemistry (IHC) and *in vivo* functional studies such as collagen antibody induced arthritis¹⁻³.

Target with alternative names

COL2A1, Collagen alpha-1(II) chain, CII, Col II. UniProt: [P28481](#).

Immunogen

The antibody clone CIIC1 originates from B cells of collagen type 2 immunized DBA/1 mice¹⁻³.

Epitope

The CIIC1 antibody binds to the C1 epitope (position 358–363; GARGLT) on triple helical type 2 collagen^{4,5}.

Species reactivity

Mouse, rat, chicken, horse, baboon

Isotype

Human IgG1, κ

Concentration

1 mg/ml

Sizes available

100µg and 1mg

Supplied in

PBS

Storage

Centrifuge briefly prior to opening vial. Store at +4 °C short term (1-2 weeks). Aliquot and store at -20 °C long term. Avoid repeated freeze/thaw cycles.

Recommended dilution

It is recommended the user determines the optimal dilution for their application. The typical starting working dilution for IHC is 1:100 and 1:1000 for ELISA.

For Research Use Only. Not for use in diagnostic procedures.

Not for resale without express authorization.

References

1. Holmdahl, R., et al. Characterization of the antibody response in mice with type II collagen-induced arthritis, using monoclonal anti-type II collagen antibodies. *Arthritis Rheum.* 1986. 29: 400–410. PMID: [2421741](#).
2. Nandakumar KS, et al. Collagen type II-specific monoclonal antibody-induced arthritis in mice: description of the disease and the influence of age, sex, and genes. *Am J Pathol.* 2003 Nov;163(5):1827-37. PMID: [14578183](#).
3. Nandakumar KS, et al. Collagen type II (CII)-specific antibodies induce arthritis in the absence of T or B cells but the arthritis progression is enhanced by CII-reactive T cells. *Arthritis Res Ther.* 2004;6(6):R544-50. PMID: [15535832](#).
4. Uysal H, et al. The crystal structure of the pathogenic collagen type II-specific mouse monoclonal antibody CIIC1 Fab: structure to function analysis. *Mol Immunol.* 2008 Apr;45(8):2196-204. PMID: [18241923](#).
5. Böiers U, et al. Collagen type II is recognized by a pathogenic antibody through germline encoded structures. *Eur J Immunol.* 2008 Oct;38(10):2784-95. PMID: [18825755](#).

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