

Product number #10130

Mouse Anti- citrullinated COL2A1 Antibody (ACC1)

Description

Affinity purified mouse monoclonal anti collagen II (COL2A1) antibody clone ACC1 in PBS, sterile filtered (20 µm). The antibody binds to the citrullinated triple helical collagen type II (CII) epitope (position 359-369; ARGLTGRPGDA)¹, the C1 epitope. The ACC1 antibody recognizes the second citrulline at position 365 in mouse CII¹. The antibody binds to flexible triple-helical CII determinants as well as many citrullinated CII peptides and was found to cross-react with several non-citrullinated epitopes on native CII². The antibody has been used in applications including ELISA^{1,2}, immunohistochemistry (IHC)¹ and bead-based multiplex immunoassays².

Target with alternative names

COL2A1, Collagen alpha-1(II) chain, CII, Col II, citrullinated CII; citrullinated Col II; citrullinated proteins.

UniProt: [P28481](http://www.uniprot.org/entry/P28481).

Immunogen

Bovine Collagen type II¹

Species reactivity

Mouse, human

Isotype

Mouse IgG2a, κ

Specificity

ACC1 antibody binds the citrullinated C1 epitope. The ACC1 antibody cross-reacts with triple-helical epitopes on CII, but not with other collagens or the proteins tested in Ge et al², except for a few citrullinated peptides.²

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 dilutions are: IHC 1:100, ELISA 1:200 - 1:500.

*For Research Use Only. Not for use in diagnostic procedures.
Not for resale without express authorization.*

References

1. Uysal H, Bockermann R, Nandakumar KS, Sehnert B, Bajtner E, Engström A, Serre G, Burkhardt H, Thunnissen MM, Holmdahl R. Structure and pathogenicity of antibodies specific for citrullinated collagen type II in experimental arthritis. *J Exp Med*. 2009 Feb 16;206(2):449-62. PMID: [19204106](https://pubmed.ncbi.nlm.nih.gov/19204106/).
2. Ge C, Tong D, Liang B, Lönnblom E, Schneider N, Hagert C, Viljanen J, Ayoglu B, Stawikowska R, Nilsson P, Fields GB, Skogh T, Kastbom A, Kihlberg J, Burkhardt H, Dobritzsch D, Holmdahl R. Anti-citrullinated protein antibodies cause arthritis by cross-reactivity to joint cartilage. *JCI Insight*. 2017 Jul 6;2(13):e93688. PMID: [28679953](https://pubmed.ncbi.nlm.nih.gov/28679953/).

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