Product number
#10110

Mouse Anti-COL2A1 Antibody (M2139)

Description
Affinity purified mouse monoclonal anti collagen II (COL2A1) antibody clone M2139 in PBS, sterile filtered (0.2 µm). The antibody recognizes the J1 epitope on triple helical collagen II[1]. The J1 epitope on mouse collagen consists of residues 551–564 with sequence MPGERRGAAGIAGPK[1,4]. The antibody M2139 has been used in applications including immunohistochemistry[4], Western blot[2], immunoprecipitation[3], and *in vivo*[4] and *in vitro*[5] functional assays.

Target with alternative names
Collagen alpha-1(II) chain, COL2A1, type II collagen, CII; UniProt: P28481.

Immunogen
Mouse collagen II J1 epitope (triple helical position 551-564) with sequence MPGERRGAAGIAGPK[1,4].

Species reactivity
Mouse, rat, human, bovine, chicken

Isotype
Mouse IgG2b, κ

Specificity
The antibody M2139 recognizes the conformational J1 epitope on the triple-helical structure of the native CII molecule.

Concentration
1 mg/ml

Size
100µg / 0.1 ml
1 mg / 1 ml

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: Functional assays (cell culture) 1:20-1:50, IHC 1:100.

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

References

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2. Tong D, Lönnblom E, Yau ACY, Nandakumar KS, Liang B, Ge C, Viljanen J, Li L, Bålan M, Klareskog L, Chagin AS, Gjertsson I, Kihlberg J, Zhao M, Holmdahl R. A Shared Epitope of Collagen Type XI and Type II Is Recognized by Pathogenic Antibodies in Mice and Humans with Arthritis. Front Immunol. 2018 Apr 12;9:451. PMID: 29706949.
3. 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.
4. Li Y, Tong D, Liang P, Lönnblom E, Viljanen J, Xu B, Nandakumar KS, Holmdahl R. Cartilage-binding antibodies initiate joint inflammation and promote chronic erosive arthritis. Arthritis Res Ther. 2020 May 24;22(1):120. PMID: 32448385.
5. Amirahmadi SF, Whittingham S, Crombie DE, Nandakumar KS, Holmdahl R, Mackay IR, van Damme MP, Rowley MJ. Arthritogenic anti-type II collagen antibodies are pathogenic for cartilage-derived chondrocytes independent of inflammatory cells. Arthritis Rheum. 2005 Jun;52(6):1897-906. PMID: 15934095.

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