

Product number
#10680

CII peptide (CII₂₅₉₋₂₇₃) – 100µg

- A Peptide for studies on T-Cell Responses Associated with Autoimmune Arthritis

Description

The CII peptide (CII₂₅₉₋₂₇₃) contains the 259 to 273 sequence of rat CII. It is the non-galactosylated peptide that is ideal to serve as the control peptide for the Galactosylated CII peptide (CII₂₅₉₋₂₇₃-GalHyl₂₆₄; product numbers [#10510](#) and [#10550](#)).

The Galactosylated CII peptide (CII₂₅₉₋₂₇₃-GalHyl₂₆₄; [#10510](#) and [#10550](#)) is the dominant T-cell epitope in collagen induced arthritis (CIA) in mice¹. The Galactosylated CII peptide (CII₂₅₉₋₂₇₃-GalHyl₂₆₄) activates autoimmune T-cells when presented by the MHC II Aq protein². **The CII peptide ([#10680](#)) may be used as a control peptide** for the in vitro stimulus by the Galactosylated CII peptide (CII₂₅₉₋₂₇₃-GalHyl₂₆₄) in antigen-specific T-cell recall assays for quantitation of T cell activity^{1,2,3,4,5} as determined by the selected readout by ELISA, ELISpot, flow cytometry or RNAseq, e.g.

Sequence

H2N-Gly-Ile-Ala-Gly-Phe-Lys-Gly-Glu-Gln-Gly-Pro-Lys-Gly-Glu-Thr-COOH

Peptide backbone sequence origin

Collagen alpha-1(II) chain, COL2A1, type II collagen, CII; UniProt: [P05539](#).

Size

100 µg; á 20µl; (available also as 10 µg)

Supplied in

0.1M acetic acid

Molecular weight

1475.62 g/mol

Storage

It is recommended to store the peptide in aliquots at -20°C, or preferably at -80°C, unless stability data would suggest otherwise. If the peptide is stored less than 48 hours before use, the peptide may be stored at 5°C (or room temperature). Avoid repeated thawing and freezing procedures.

Recommended dilution

It is recommended that the user determines the optimal dilution for their application. For in vitro T cell stimulation, a concentration of 10 µg/ml⁵ and a concentration of 20 µg/ml for IL-17 ELISpot assays⁴ has been used.

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

References

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3. Lindgren C, Andersson IE, Berg L, Dobritzsch D, Ge C, Haag S, Uciechowska U, Holmdahl R, Kihlberg J, Linusson A. Hydroxyethylene isosteres introduced in type II collagen fragments substantially alter the structure and dynamics of class II MHC A(q)/glycopeptide complexes. Org Biomol Chem. 2015 Jun 14;13(22):6203-16.. PMID: [25960177](#).
4. Klocke K, Sakaguchi S, Holmdahl R, Wing K. Induction of autoimmune disease by deletion of CTLA-4 in mice in adulthood. Proc Natl Acad Sci U S A. 2016 Apr 26;113(17):E2383-92. PMID: [27071130](#).
5. Merky P, Batsalova T, Bockermann R, Dzhambazov B, Sehnert B, Burkhardt H, Bäcklund J. Visualization and phenotyping of proinflammatory antigen-specific T cells during collagen-induced arthritis in a mouse with a fixed collagen type II-specific transgenic T-cell receptor β-chain. Arthritis Res Ther. 2010;12(4):R155. PMID: [20682070](#)

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