Miltenyi Biotec

MHC MACSimer A*0201 HSP105 (KLMSSNSTDL), human, Vio® R667

30 tests 130-136-934
90 tests 130-136-968

Contents

1. Description
   - 1.1 Background information
   - 1.2 Applications
   - 1.3 Reagent and instrument requirements
2. Protocol

1. Description

This product is for research use only.

Components	**30 tests:** 1× 150 µL MHC MACSimer A*0201 HSP105 (KLMSSNSTDL), human, Vio R667 (100 pmol) **90 tests:** 3× 150 µL MHC MACSimer A*0201 HSP105 (KLMSSNSTDL), human, Vio R667 (100 pmol)
Class	MHC Class I
Allele	A*0201 ▲ **Note:** The allele number is based on the human leukocyte antigen (HLA) nomenclature to designate a specific allele at a given HLA locus.
Antigen	HSP105
Peptide sequence	KLMSSNSTDL
Species reactivity	human
Release feature	yes
Control	MHC MACSimer A*0201 Control, human, Vio R667
Product format	Reagents are supplied in buffer containing stabilizer and 0.05% sodium azide.
Storage	Store protected from light at +2 to +8 °C. Do not freeze. The expiration date is indicated on the vial label.

1.1 Background information

Peptide-loaded MHC MACSimers have been developed for the accurate detection, analysis, and isolation of antigen-specific T cells from different origins, ranging from peripheral blood mononuclear cells (PBMCs) to dissociated organs and whole blood samples. MHC MACSimers are offered in various peptide-MHC allele combinations and cover the most important antigens associated with cancer, infection, and autoimmune diseases. MHC MACSimers are optimized for minimal hands-on time protocols. They feature superior brightness, enabling reliable identification of even rare T cell populations via their T cell receptor complex (TCR). For sequential multi-sorting or further downstream applications, MHC MACSimers of certain allelic variants can be released from the antigen-specific T cells after staining using REAlease® Technology.

1.2 Applications

- Detection and analysis of antigen-specific T cells by flow cytometry
- Sorting and enrichment of antigen-specific T cells by flow sorting

1.3 Reagent and instrument requirements

- Flow cytometer equipped with a red (640 nm), a blue (488 nm), and a violet (405 nm) laser, e.g., MACSQuant® Analyzer 10 (# 130-096-343) or MACSQuant Analyzer 16 (# 130-109-803)
- (Optional) MHC MACSimer A*0201 Control, human, Vio R667 (# 130-134-697, # 130-134-699)
- (Optional) REAlease Support Kit (# 130-120-675)
- (Optional) Cell sorter equipped with a red (640 nm), a blue (488 nm), and a violet (405 nm) laser, e.g., MACSQuant Tyto® (# 130-103-931)

2. Protocol

▲ The detailed protocol and an exemplary MHC MACSimer staining data set are available at **www.miltenyibiotec.com/peptide-loaded-MHC-class-1-MACSimer-staining.html.**

	30 tests	90 tests
Number of staining reactions	≥30 with 10^6 cells each	≥90 with 10^6 cells each

Table 1: Reagent capacities for staining reactions.

Refer to **www.miltenyibiotec.com** for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com for local Miltenyi Biotec Technical Support contact information.

Miltenyi Biotec B.V. & Co. KG
Friedrich-Ebert-Straße 68, 51429 Bergisch Gladbach, Germany
Phone +49 2204 8306-0, Fax +49 2204 85197
macsde@miltenyi.com
www.miltenyibiotec.com

140-007-068.01

Legal notices

Limited product warranty

Miltenyi Biotec B.V. & Co. KG and/or its affiliate(s) warrant this product to be free from material defects in workmanship and materials and to conform substantially with Miltenyi Biotec's published specifications for the product at the time of order, under normal use and conditions in accordance with its applicable documentation, for a period beginning on the date of delivery of the product by Miltenyi Biotec or its authorized distributor and ending on the expiration date of the product's applicable shelf life stated on the product label, packaging or documentation (as applicable) or, in the absence thereof, ONE (1) YEAR from date of delivery ("Product Warranty"). Miltenyi Biotec's Product Warranty is provided subject to the warranty terms as set forth in Miltenyi Biotec's General Terms and Conditions for the Sale of Products and Services available on Miltenyi Biotec's website at www.miltenyibiotec.com, as in effect at the time of order ("Product Warranty"). Additional terms may apply. BY USE OF THIS PRODUCT, THE CUSTOMER AGREES TO BE BOUND BY THESE TERMS.

THE CUSTOMER IS SOLELY RESPONSIBLE FOR DETERMINING IF A PRODUCT IS SUITABLE FOR CUSTOMER'S PARTICULAR PURPOSE AND APPLICATION METHODS.

Technical information

The technical information, data, protocols, and other statements provided by Miltenyi Biotec in this document are based on information, tests, or experience which Miltenyi Biotec believes to be reliable, but the accuracy or completeness of such information is not guaranteed. Such technical information and data are intended for persons with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. Miltenyi Biotec shall not be liable for any technical or editorial errors or omissions contained herein.

All information and specifications are subject to change without prior notice. Please contact Miltenyi Biotec Technical Support or visit www.miltenyibiotec.com for the most up-to-date information on Miltenyi Biotec products.

Licenses

This product and/or its use may be covered by one or more pending or issued patents and/or may have certain limitations. Certain uses may be excluded by separate terms and conditions. Please contact your local Miltenyi Biotec representative or visit Miltenyi Biotec's website at www.miltenyibiotec.com for more information.

The purchase of this product conveys to the customer the non-transferable right to use the purchased amount of the product in research conducted by the customer (whether the customer is an academic or for-profit entity). This product may not be further sold. Additional terms and conditions (including the terms of a Limited Use Label License) may apply.

CUSTOMER'S USE OF THIS PRODUCT MAY REQUIRE ADDITIONAL LICENSES DEPENDING ON THE SPECIFIC APPLICATION. THE CUSTOMER IS SOLELY RESPONSIBLE FOR DETERMINING FOR ITSELF WHETHER IT HAS ALL APPROPRIATE LICENSES IN PLACE. Miltenyi Biotec provides no warranty that customer's use of this product does not and will not infringe intellectual property rights owned by a third party. BY USE OF THIS PRODUCT, THE CUSTOMER AGREES TO BE BOUND BY THESE TERMS.

Trademarks

MACS, MACSQuant, the Miltenyi Biotec logo, REAlease, and Tyto, and Vio are registered trademarks or trademarks of Miltenyi Biotec B.V. & Co. KG and/or its affiliates in various countries worldwide. All other trademarks mentioned in this publication are the property of their respective owners and are used for identification purposes only.

Copyright © 2025 Miltenyi Biotec and/or its affiliates. All rights reserved.