Miltenyi Biotec

MHC MACSimer A*0201 HPV E7 (YMLDLQPETT), human, PE

30 tests	130-136-353
90 tests	130-136-354

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1. Description

This product is for research use only.

Components	**30 tests:** 1× 150 µL MHC MACSimer A*0201 HPV E7 (YMLDLQPETT), human, PE (100 pmol) **90 tests:** 3× 150 µL MHC MACSimer A*0201 HPV E7 (YMLDLQPETT), human, PE (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	HPV E7
Peptide sequence	YMLDLQPETT
Species reactivity	human
Release feature	yes
Control	MHC MACSimer A*0201 Control, human, PE
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 or MACS® Technology (magnetic enrichment using Anti-PE MicroBeads)

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, PE (# 130-134-639, # 130-134-668)
- (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)
- (Optional) Anti-PE MicroBeads (# 130-048-801) or Anti-PE MicroBeads UltraPure (# 130-105-639)

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.

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