Miltenyi Biotec

MHC MACSimer A*0301 FleX Kit, human, PE

50 tests	130-141-843
100 tests	130-141-845

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1. Description

This product is for research use only.

Components	**One kit for 50 tests contains:** 1× 150 µL MHC MACSimer A*0301 FleX Reagent, human, PE (100 pmol) 1× 100 µL MHC MACSimer A*0301 FleX Loading Buffer **One kit for 100 tests contains:** 2× 150 µL MHC MACSimer A*0301 FleX Reagent, human, PE (100 pmol) 2× 100 µL MHC MACSimer A*0301 FleX Loading Buffer
Class	MHC Class I
Allele	A*0301 ▲ **Note:** The allele number is based on the human leukocyte antigen (HLA) nomenclature to designate a specific allele at a given HLA locus.
Antigen	custom
Peptide sequence	custom
Species reactivity	human
Release feature	yes
Control	MHC MACSimer A*0301 Control, human, PE
Product format	MHC MACSimer FleX Reagents are supplied in buffer containing stabilizer and 0.05% sodium azide. MHC MACSimer FleX Loading Buffer contains 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

MHC MACSimer FleX Kits have been designed for the highly flexible analysis of antigen-specific T cells. The antigenic peptide of interest, such as a disease-associated peptide, is loaded onto the provided MHC MACSimer FleX Reagent for subsequent analysis of antigen-specific T cells. With the kit, a single epitope of interest can be easily analyzed in multiple samples. Alternatively, a large number of different (potential) epitopes can be screened in parallel. 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.
The MHC MACSimer FleX Kits allow maximum flexibility for various applications, like neoantigen discovery, screening of potential cancer, autoimmune or pathogen-related T cell epitopes, as well as monitoring of antigen-specific T cell responses.

For more information about the MHC multimer technology, refer to the MACS Handbook at **www.miltenyibiotec.com/MHC-multimers-handbook**.

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)
- MACStaining Buffer (#130-138-335)
- (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)
- (Optional) REAlease Support Kit (# 130-120-675)
- (Optional) Anti-PE MicroBeads (# 130-048-801) or Anti-PE MicroBeads UltraPure (# 130-105-639)
- (Optional) MHC MACSimer A*0301 Control, human, PE, (# 130-141-879, # 130-141-881)

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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.**

▲ **Note:** The use of MACStaining Buffer is highly recommended for A*0301 MHC MACSimer, as it enhances staining quality and enables more sensitive and reliable detection of antigen-specific T cells.

	50 tests	100 tests
Number of loading reactions	5 with 50 µL each	10 with 50 µL each
Number of staining reactions	≥50 with 10^6 cells each	≥100 with 10^6 cells each

Table 1: Kit capacities for loading and 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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