

MHC DEXTRAMER® MELANOMA PANEL

The MHC Dextramer® Melanoma Panel consists of MHC Dextramer® reagents specific for 6 different melanoma-associated antigens MART-1, NY-ESO-1, MAGE-A3, Tyrosinase, gp100 and MAGE-A1. These Dextramer® reagents can be used for detection, enumeration and isolation of melanoma-specific CD8⁺ T cells from blood or tumor tissue.¹⁻⁸

IMPROVED SEPARATION OF POSITIVES FROM NEGATIVES

The MHC Dextramer® Melanoma Panel comprises 6 different Dextramer®-specificities. Each Dextramer®-specificity is provided both as a PE- and APC conjugate. This allows for so-called 2D-staining, i.e. the use of two Dextramer® reagents with the same specificity but different fluorochromes in the same staining reaction. 2D-staining makes it easier to distinguish Dextramer®-positive cells from Dextramer®-negative cells. The use of dual-color staining has been demonstrated to reduce the frequency of false positives 10-fold.⁹

CONTENT

14 Dextramer® reagents are provided, including 2 negative controls:

Dextramer®

HLA-A*0201 / ELAGIGILTV/PE
 HLA-A*0201 / ELAGIGILTV/APC
 HLA-A*0201 / SLLMWITQV/PE
 HLA-A*0201 / SLLMWITQV/APC
 HLA-A*0201 / KVAELVHFL/PE
 HLA-A*0201 / KVAELVHFL/APC
 HLA-A*0201 / YMDGTMSQV/PE
 HLA-A*0201 / YMDGTMSQV/APC
 HLA-A*0201 / IMDQVPFSV/PE
 HLA-A*0201 / IMDQVPFSV/APC
 HLA-A*0201 / KVLEYVIKIV/PE
 HLA-A*0201 / KVLEYVIKIV/APC
 HLA-A*0201 / Negative Control/PE
 HLA-A*0201 / Negative Control/APC

RELATED PRODUCTS

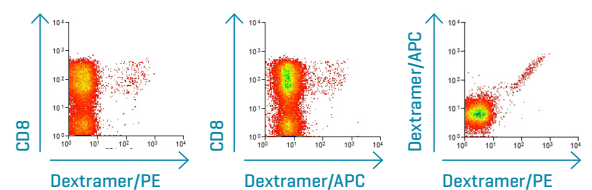
Each Dextramer® reagent in the MHC Dextramer® Melanoma Panel is also available as a single reagent. Immudex offers additional melanoma Dextramer® reagents not included in this panel.

The MHC Dextramer® Melanoma Panel is for research use only.

MHC DEXTRAMER®



2D-STAINING



An example 2D-staining is exemplified here for a CMV Dextramer® [A*0201/ NLVPMVATV], labeled with either PE or APC. 2D-staining clearly improves the ability to distinguish CMV-specific T cells from the negative T cells.

Antigen

Tests

MART-1	25 tests
MART-1	25 tests
NY-ESO-1	25 tests
NY-ESO-1	25 tests
MAGE-A3	25 tests
MAGE-A3	25 tests
Tyrosinase	25 tests
Tyrosinase	25 tests
gp100	25 tests
gp100	25 tests
MAGE-A1	25 tests
MAGE-A1	25 tests
Nonsense	25 tests
Nonsense	25 tests

POPULAR CANCER DEXTRAMER®

Allele	Peptide	Antigen	Type of cancer
A*0201	ELAGIGILTV	MART-1	Melanoma
A*0201	SLLMWITQC	NY-ESO-1 157-165	Melanoma
H-2Db	Abu Abu L Abu LTVFL	Moloney murine sarcoma virus [MoMSV]	Moloney murine sarcoma virus [MoMSV]
A*0201	RMFPNAPYL	WT-1	Lung, prostate, breast, ovarian cancer
A*0201	VLQELNVTV	Proteinase 3 peptide Pr1 169-177	Cancer
A*0101	EVDPIGHLY	MAGE-A3	Melanoma
H-2Kb	SVYDFVWL	L-dopachrome tautomerase precursor	Cancer
A*0201	YMDGTMSQV	Tyrosinase	Melanoma
A*2402	SYGVLLWEI	TEK or EGFR	Cancer
A*0201	IMDQVPFSV	gp100	Melanoma
A*0201	LMLGEFLKL	Survivin1 M2 96-104	Cancer
A*0201	KIFGSLAFL	HER2/neu 369-377	Breast cancer
A*2402	RFVPDGNRI	VEGFR2 169-177	Pancreatic cancer
H-2Kd	TYLPTNASL	Her2/neu 63-71	Breast cancer
A*0201	KVAELVHFL	MAGE-A3	Melanoma
A*0201	YMLDLQPETT	HPV-16 E7 11-20	HPV-16
A*0201	CMTWNQMNL	WT1 235-243	Cancer
A*0201	RLQGISPKI	SSX2	Cancer
H-2Db	ASFRNLTHL	Tpbg 258-266	Cancer
H-2Ld	LPYLGWLVF	P815 Mastocytoma 35-43	Cancer

REFERENCES

- Uzana, R., et al., Trogocytosis Is a Gateway to Characterize Functional Diversity in Melanoma-Specific CD8+ T Cell Clones. *Journal of Immunology*, 2012. 188(2): p. 632-40.
- Hong, D.S., et al., BRAF[V600] inhibitor GSK2118436 targeted inhibition of mutant BRAF in cancer patients does not impair overall immune competency. *Clinical cancer research: an official journal of the American Association for Cancer Research*, 2012. 18(8): p. 2326-35.
- Goodyear, O.C., et al., Azacitidine augments expansion of regulatory T cells after allogeneic stem cell transplantation in patients with acute myeloid leukemia [AML]. *Blood*, 2012. 119(14): p. 3361-9.
- Sorensen, R.B., et al., The immunodominant HLA-A2-restricted MART-1 epitope is not presented on the surface of many melanoma cell lines. *Cancer immunology, immunotherapy: CII*, 2009. 58(5): p. 665-75.
- Kollgaard, T., et al., Longitudinal immune monitoring of patients receiving intratumoral injection of a MART-1 T-cell receptor-transduced cell line [C-Cure 709]. *Cytotherapy*, 2009. 11(5): p. 631-41.
- Machlenkin, A., et al., Capture of tumor cell membranes by trogocytosis facilitates detection and isolation of tumor-specific functional CTLs. *Cancer research*, 2008. 68(6): p. 2006-13.
- Straten, P., et al., Identification of identical TCRs in primary melanoma lesions and tumor free corresponding sentinel lymph nodes. *Cancer immunology, immunotherapy: CII*, 2006. 55(5): p. 495-502.
- Hadrup, S., et al., Tumor infiltrating lymphocytes in seminoma lesions comprise clonally expanded cytotoxic T cells. 2006. *Int. J. Cancer*: 119, 831-838.
- Hadrup, S., et al, Parallel detection of antigen-specific T-cell responses by multidimensional encoding of MHC multimers. 2009. *Nature Methods*, 6(7): p.520-28.