

DEXTRAMER® CMV KIT (RUO-GMP)

Follow the reconstitution of cellular CMV immunity in immunosuppressed patients.

Cytomegalovirus infection and disease pose a major risk in immunosuppressed patients. Reactivation of the virus is a frequently occurring complication and can significantly contribute to morbidity and mortality if the virus is not controlled.

CMV-specific CD8+ T cells are considered the main factor in successful management of the infection. In transplant patients a low number of CMV-specific CD8+ T cells are predictive for development of CMV-related complications.

THE DEXTRAMER® CMV KIT

- Provides a method for quantification of CMV-specific CD8+ T cells in whole blood samples
- Provides a tool to monitor reconstitution of CMV immunity following transplantation
- Is an aid in predicting patients at risk of developing CMV-related disease.

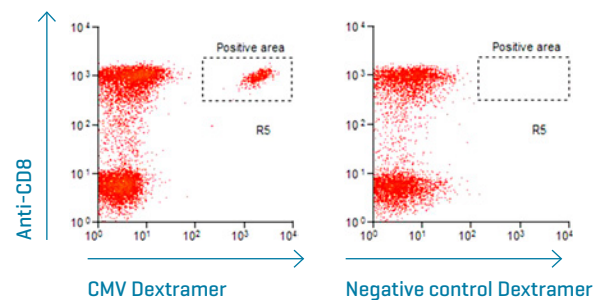
DEXTRAMER® CMV KIT CONTENT

The Dextramer CMV Kit comprises 8 CMV-specific Dextramers and 1 negative control.

Dextramer	Antigen	# Tests
HLA-A*0101/VTEHDTLLY	pp50	25
HLA-A*0201/NLVPMTATV	pp65	50
HLA-A*0301/KLGGALQAK	IE-1	25
HLA-A*2402/QYDPVAALF	pp65	25
HLA-B*0702/RPHERNGFTVL	pp65	25
HLA-B*0702/TPRVTGGGAM	pp65	25
HLA-B*0801/ELRRKMMYM	pp65	25
HLA-B*3501/IPSINVHHY	pp65	25
Negative Control	Nonsense	150

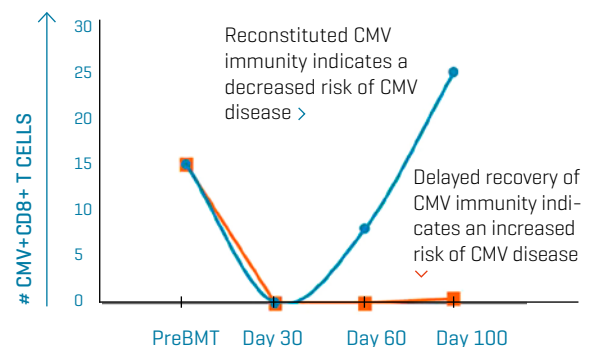
- The Dextramer® CMV Kit is available for research use only in USA. Manufactured under GMP.

MONITORING CELLULAR CMV IMMUNITY



The Dextramer CMV kit can be used to detect and enumerate CMV-specific CD8+ T cells in whole blood by flow cytometry.

RECONSTITUTION OF CMV IMMUNITY IN TRANSPLANT PATIENTS



Schematic model exemplifying CMV-specific T cell immune monitoring in two transplant patients. Blue line: patient with fast recovery of CMV+CD8+ T cells, orange line; patient with delayed recovery CMV+CD8+ T cells.

DEXTRAMER® TECHNOLOGY

CMV Dextramers are used to detect and quantify CMV-specific T cells in whole blood. They consist of a dextran polymer backbone carrying an optimized number of MHC and fluorochrome molecules allowing specific and bright staining. The CMV Dextramers are produced under GMP and are extensively validated.

RELATED PRODUCTS

The Dextramers in the Dextramer® CMV Kit are also available as single reagents.

In USA, the CMV Dextramers are also available as ASR labeled single reagents.

REFERENCES

1. Smith C, et al. **T cell repertoire remodelling following post-transplant T cell therapy coincides with clinical response.** J Clin Invest. 2019 Aug 15
2. Vidal-Castañeira JR, et al. **Effect of Type of Dialysis on CMV-Specific CD8+ T Cells in Kidney Transplant Candidates.** Front Immunol. 2019 Jul 19;10:1680
3. Cwynarski K, Ainsworth J, Cobbold M, Wagner S, Mahendra P, Apperley J, et al. **Direct visualization of cytomegalovirus-specific T-cell reconstitution after allogeneic stem cell transplantation.** Blood. 2001; 97[5]:1232-40.
4. Gratama JW, Boeckh M, Nakamura R, Cornelissen JJ, Brooimans RA, Zaia JA, et al. **Immune monitoring with iTag MHC Tetramers for prediction of recurrent or persistent cytomegalovirus infection or disease in allogeneic hematopoietic stem cell transplant recipients: a prospective multicenter study.** Blood. 2010; 116[10]:1655-62.
5. Gratama JW, van Esser JW, Lamers CH, Tournay C, Lowenberg B, Bolhuis RL, et al. **Tetramer-based quantification of cytomegalovirus [CMV]-specific CD8+ T lymphocytes in T-cell-depleted stem cell grafts and after transplantation may identify patients at risk for progressive CMV infection.** Blood. 2001; 98[5]:1358-64.
6. Borchers S, Bremm M, Lehrnbecher T, Dammann E, Pabst B, Wölk B, Esser R, Yildiz M, Eder M, Stadler M, Bader P, Martin H, Jarisch A, Schneider G, Klingebiel T, Ganser A, Weissinger EM, Koehl U. **Sequential anti-cytomegalovirus response monitoring may allow prediction of cytomegalovirus reactivation after allogeneic stem cell transplantation.** PLoS One. 2012;7[12].

MHC DEXTRAMER®



ORDERING INFORMATION

Product	Regulatory status	Cat. No.	Price
Dextramer® CMV Kit / PE	RUO[GMP]	GX01	4500 USD