



Miltenyi Biotec

Express Modes and Smart Gain Technology for MACSQuant® Analyzers

Generate reproducible data between different experiments and instruments

Flow cytometry analysis is a powerful and sensitive method for the evaluation of cell populations. However, the resulting data can be highly variable. To ensure generation of reliable and reproducible data, you need automated platforms, trusted reagents, and proven protocols. Standardize your analysis methods and harmonize your instrument settings with Express Modes and Smart Gain Technology from Miltenyi Biotec.

Express Modes are unique data acquisition and analysis tools that simplify and standardize flow instrument setup, sample measurement, and data analysis. Smart Gain technology is a software feature of MACSQuant Flow Analysis Instruments to simplify the harmonization of instrument settings across multiple instruments in your lab or for in other labs in faraway locations. The combination of Express Modes and Smart Gains is the key to reproducible flow data, from experiment to experiment and between different instruments.

► miltenyibiotec.com



Express Modes
software

Express Modes are standardized data analysis tools that are optimized to automate flow cytometric measurements and analyses via predefined experiment settings, acquisition, and automated gating. Derived from mathematical algorithms based on up to 1,100 datasets, they reduce human error and therefore increase experimental reproducibility.

www.miltenyibiotec.com/cytometry-express-modes



Smart Gain
technology

Smart Gain technology enables you to transfer your assay from one instrument to another, while passing on all necessary information to ensure harmonized instrument settings. With automated voltage adjustments, MACSQuant instruments produce comparable, standardized results from test to test, from user to user, throughout time, and across devices.

www.miltenyibiotec.com/smartgains

CAR T Cell Express Modes Package for the MQ10 (Order# 160-002-376)

Express Modes	Purpose	V1 VioBlue®	V2 Vio-Green®	B1 FITC	B2 PE	B3 7AAD PerCP-Vio®700	B4 PE-Vio®770	R1 APC	R2 APC-Vio®770
Immune Cell Composition	Differentiation of cell viability and composition of immune cells	CD45	CD4	CD3	CD56/CD16	7-AAD	CD19	CD14	CD8
CART Cell Transduction	Determination of transduction efficiency of CAR T cells	CD45	CD4	CD3	CAR detection reagent	7-AAD	–	CD14	CD8
CART Cell Persistence	Determination of CAR T cell persistence	CD45RA	CD4	CD3	CAR detection reagent	7-AAD*	CD62L	CD45RO	CD8
CART Cell Tscm	Determination of stem memory T cells (Tscm)	CD197	CD4	CD3	CD95	7-AAD	CD62L	CD45RO	CD8
CART Cell Differentiation	Analysis of differentiation markers on CAR ⁺ and CAR T cells	CD45RA	CD4	CD3	CAR detection reagent	7-AAD	CD62L	CD45RO	CD8
CART Cell Proliferative Ability	Analysis of proliferative ability markers on CAR ⁺ and CAR T cells	CD27	CD4	CD3	CAR detection reagent	7-AAD*	CD279	CD127	CD8
CART Cell Exhaustion	Analysis of exhaustion markers on CAR ⁺ and CAR T cells	CD223	CD4	CD3	CAR detection reagent	7-AAD*	CD279	CD366	CD8
CART Cell Activation	Analysis of activation markers on CAR ⁺ and CAR T cells	CD154	CD4	CD3	CAR detection reagent	7-AAD*	CD25	CD137	CD8
CART Cell Staining Control	Staining control	–	CD4	CD3	CAR detection reagent	7-AAD*	–	–	CD8
B Cell Differentiation	Determination of B cell differentiation status	CD20	CD19	CD38	CD138	7-AAD	IgD	CD27	CD24
B Malignant Cells	Identification of B malignant cells	CD45	Ig Kappa	CD19	CD34	7-AAD	CD20	CD5/CD10	Ig Lambda
B Regulatory Cells	Identification of various B regulatory cell subsets	CD20	CD19	CD39	CD21	7-AAD	CD25	CD73	CD71

Table 1: Express Modes belonging to the CART Cell Express Modes Package.

* For immunomonitoring, exclusion markers such as CD14 and CD15 should be added in PerCP-Vio 700.

New Express Modes Package: CART Cell Essential for MQ16 (Order# 160-002-759)

Express Modes	Purpose	V1 VioBlue®	V2 Vio-Green®	B1 FITC	B2 PE	B3 7AAD PerCP-Vio®700	B4 PE-Vio®770	R1 APC	R2 APC-Vio®770
CART Immune Composition	Composition differentiation of cell viability and composition of immune cells	CD45	CD4	CD3	CD56/CD16	7-AAD	CD19	CD14	CD8
CART Transduction	Determination of transduction efficiency of CAR-T cells	CD45	CD4	CD3	CAR Detection Reagent	7-AAD	–	CD14	CD8
CART Persistence	Determination of CAR-T cell persistence	CD45RA	CD4	CD3	CAR Detection Reagent	7-AAD*	CD62L	CD45RO	CD8

Table 2: New Express Modes Package: CART Cell Essential for MQ16

* For immunomonitoring, exclusion markers such as CD14 and CD15 should be added in PerCP-Vio 700.



Miltenyi Biotec Inc. | 6125 Cornerstone Court East | San Diego | CA 92121 | USA
Phone +1 800 FOR MACS | Fax +1 530 745 2806 | macs@miltenyibiotec.com | www.miltenyibiotec.com

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