Maxpar® Human Regulatory T Cell Phenotyping Panel Kit

Catalog#: 201319
Package Size: 25 tests

Contents:
- Maxpar® Cell Staining Buffer (500 mL)
- Maxpar® Nuclear Antigen Staining Buffer Concentrate 4X (8 mL)
- Maxpar® Nuclear Antigen Staining Buffer Diluent (30 mL)
- Maxpar® Fix and Perm Buffer (25 mL)
- Maxpar® Water (500 mL)
- Cell-ID™ Ir Intercalator (125 µM; 25 µL)
- Maxpar® Antibodies (see table for panel)**

** The antibodies are provided in individual tubes, not a premixed cocktail.

Technical Information

Description: Regulatory T cells (Tregs) are a suppressive subset of CD4+ T helper (Th) cells important for the regulation of immune responses. Tregs are defined by expression of the transcription factor Foxp3. Additional Treg markers include constitutive expression of the high-affinity IL-2Ra chain (CD25) and cytotoxic T lymphocyte-associated antigen 4 (CTLA-4), along with low expression of the IL-7Rα chain (CD127). CD4+CD25+Foxp3+ Tregs can be divided into two main types: thymically derived Tregs (tTregs) and peripherally derived Tregs (pTregs). Although it is difficult to distinguish between tTregs and pTregs phenotypically, both are thought to have an essential role in immune regulation. Because of their immunoregulatory function, Tregs are an attractive therapeutic target in many different immune-mediated diseases, including transplantation, autoimmunity, and autoinflammation.

Recommended Usage: For staining with the Human Regulatory T Cell Phenotyping Panel Kit, cells should be prepared using standard techniques and stained according to the Maxpar® Nuclear Antigen Staining Protocol.

Human PBMCs were stained with the Human Regulatory T Cell Phenotyping Panel Kit. Total, naive, effector, and terminal effector populations of CD4+ regulatory T cells were identified as indicated, in addition to CD4+Foxp3+ non-regulatory T cells. The median expression of markers in each population is indicated in the heatmap.
References:
