

# MACS® Products for T cell research

T cells are a heterogeneous cell population of distinct subsets playing different roles in immune regulation. A wide range of MACS® Products is available for the isolation and analysis of T helper cells, cytotoxic T cells, regulatory T cells, antigen-

specific T cells, and other T cell subsets from various species. Miltenyi Biotec has also developed a number of products for polyclonal or antigen-specific stimulation of T cells.  
Last update: January 2010

## Antibodies for flow cytometry: human cells

| Product                   | Clone, isotype         | Conjugate | Capacity       | Order no.   |
|---------------------------|------------------------|-----------|----------------|-------------|
| Anti-CLA                  | HECA-452, rat IgM      | FITC      | 100 tests      | 130-091-636 |
|                           |                        | PE        | 100 tests      | 130-091-635 |
|                           |                        | Biotin    | 100 tests      | 130-091-634 |
|                           |                        | pure      | 100 µg in 1 mL | 130-092-629 |
| Anti-FoxP3                | 3G3, mouse IgG1        | PE        | 100 tests      | 130-093-014 |
|                           |                        | APC       | 100 tests      | 130-093-013 |
| FoxP3 Staining Buffer Set |                        |           | 100 tests      | 130-093-142 |
| Anti-GITR                 | DT5D3, mouse IgG1      | PE        | 100 tests      | 130-092-895 |
|                           |                        | Biotin    | 100 tests      | 130-092-886 |
|                           |                        | pure      | 100 µg in 1 mL | 130-092-885 |
| Anti-TCRa/β               | BW242/412, mouse IgG2b | PE        | 100 tests      | 130-091-236 |
|                           |                        | APC       | 100 tests      | 130-091-237 |
| CD2                       | LT2, mouse IgG2b       | PE        | 100 tests      | 130-091-115 |
| CD3                       | BW264/56, mouse IgG2a  | FITC      | 100 tests      | 130-080-401 |
|                           |                        | PE        | 100 tests      | 130-091-374 |
|                           |                        | APC       | 100 tests      | 130-091-373 |
|                           |                        | VioBlue   | 100 tests      | 130-094-363 |
| CD4                       | M-T466, mouse IgG1     | FITC      | 100 tests      | 130-080-501 |
|                           |                        | PE        | 100 tests      | 130-091-231 |
|                           |                        | APC       | 100 tests      | 130-091-232 |
| CD4 (VIT4)                | VIT4, mouse IgG2a      | FITC      | 100 tests      | 130-092-358 |
|                           |                        | PE        | 100 tests      | 130-092-373 |
|                           |                        | APC       | 100 tests      | 130-092-374 |
|                           |                        | VioBlue   | 100 tests      | 130-094-153 |
|                           |                        | PerCP     | 100 tests      | 130-094-963 |
| CD6                       | M-T411, mouse IgG1     | FITC      | 100 tests      | 130-091-482 |
|                           |                        | PE        | 100 tests      | 130-091-233 |
|                           |                        | APC       | 100 tests      | 130-091-234 |

| Product | Clone, isotype         | Conjugate | Capacity       | Order no.   |
|---------|------------------------|-----------|----------------|-------------|
| CD8     | BW135/80, mouse IgG2a  | FITC      | 100 tests      | 130-080-601 |
|         |                        | PE        | 100 tests      | 130-091-084 |
|         |                        | APC       | 100 tests      | 130-091-076 |
|         |                        | VioBlue   | 100 tests      | 130-094-152 |
|         |                        | PerCP     | 100 tests      | 130-094-972 |
| CD25    | 4E3, mouse IgG2b       | PE        | 100 tests      | 130-091-024 |
|         |                        | APC       | 100 tests      | 130-092-858 |
|         |                        | Biotin    | 100 tests      | 130-091-235 |
| CD27    | M-T271, mouse IgG1     | FITC      | 100 tests      | 130-093-184 |
|         |                        | PE        | 100 tests      | 130-093-185 |
|         |                        | APC       | 100 tests      | 130-093-186 |
|         |                        | Biotin    | 100 tests      | 130-093-196 |
| CD28    | 15E8, mouse IgG1       | PE        | 100 tests      | 130-092-921 |
|         |                        | APC       | 100 tests      | 130-092-923 |
|         |                        | Biotin    | 100 tests      | 130-092-955 |
| CD39    | MZ18-23C8, mouse IgG1  | FITC      | 100 tests      | 130-093-502 |
|         |                        | PE        | 100 tests      | 130-093-503 |
|         |                        | APC       | 100 tests      | 130-093-504 |
|         |                        | Biotin    | 100 tests      | 130-093-505 |
|         |                        | pure      | 100 µg in 1 mL | 130-093-506 |
| CD40    | HB14, mouse IgG1       | PE        | 100 tests      | 130-094-135 |
|         |                        | APC       | 100 tests      | 130-094-137 |
|         |                        | Biotin    | 100 tests      | 130-094-142 |
| CD45    | 5B1, mouse IgG2a       | FITC      | 100 tests      | 130-080-202 |
|         |                        | PE        | 100 tests      | 130-080-201 |
|         |                        | APC       | 100 tests      | 130-091-230 |
|         |                        | VioBlue   | 100 tests      | 130-092-880 |
|         |                        | PerCP     | 100 tests      | 130-094-975 |
| CD45RA  | T6D11, mouse IgG2b     | FITC      | 100 tests      | 130-092-247 |
|         |                        | PE        | 100 tests      | 130-092-248 |
|         |                        | APC       | 100 tests      | 130-092-249 |
| CD49d   | MZ18-24A9, mouse IgG2b | FITC      | 100 tests      | 130-093-283 |
|         |                        | PE        | 100 tests      | 130-093-282 |
|         |                        | APC       | 100 tests      | 130-093-281 |
|         |                        | Biotin    | 100 tests      | 130-093-280 |
|         |                        | pure      | 100 µg in 1 mL | 130-094-279 |
| CD57    | TB03, mouse IgM        | FITC      | 100 tests      | 130-092-174 |
|         |                        | PE        | 100 tests      | 130-092-139 |
|         |                        | APC       | 100 tests      | 130-092-141 |
|         |                        | Biotin    | 100 tests      | 130-092-620 |
| CD62L   | 145/15, mouse IgG1     | FITC      | 100 tests      | 130-091-757 |
|         |                        | PE        | 100 tests      | 130-091-756 |
|         |                        | APC       | 100 tests      | 130-091-755 |
| CD69    | FN50, mouse IgG1       | FITC      | 100 tests      | 130-092-166 |
|         |                        | PE        | 100 tests      | 130-092-160 |
|         |                        | APC       | 100 tests      | 130-092-159 |
|         |                        | Biotin    | 100 tests      | 130-092-161 |
| CD127   | MB15-18C9, mouse IgG2a | FITC      | 100 tests      | 130-094-888 |
|         |                        | PE        | 100 tests      | 130-094-889 |
|         |                        | APC       | 100 tests      | 130-094-890 |
|         |                        | Biotin    | 100 tests      | 130-094-891 |
|         |                        | pure      | 100 µg in 1 mL | 130-094-942 |

| Product                                  | Clone, isotype        | Conjugate | Capacity       | Order no.   |
|--|-----------------------|-----------|----------------|-------------|
| CD137                                    | 4B4-1, mouse IgG1     | PE        | 100 tests      | 130-093-475 |
| CD154                                    | 5C8, mouse IgG2a      | PE        | 100 tests      | 130-092-289 |
|  |                       | APC       | 100 tests      | 130-092-290 |
|  |                       | Biotin    | 100 tests      | 130-092-690 |
| CD161                                    | 191B8, mouse IgG2a    | FITC      | 100 tests      | 130-092-907 |
|  |                       | PE        | 100 tests      | 130-092-677 |
|  |                       | APC       | 100 tests      | 130-092-678 |
|  |                       | Biotin    | 100 tests      | 130-092-906 |
|  |                       | pure      | 100 µg in 1 mL | 130-092-676 |
| CD197 (CCR7)                             | FR11-11E8, mouse IgG1 | PE        | 100 tests      | 130-093-621 |
|  |                       | APC       | 100 tests      | 130-093-624 |
|  |                       | pure      | 100 µg in 1 mL | 130-093-626 |
| CD294 (CRTH2)                            | BM16, rat IgG2a       | PE        | 100 tests      | 130-091-238 |
|  |                       | Biotin    | 100 tests      | 130-091-239 |
| CD4 <sup>+</sup> RTE Enumeration Kit     |                       |           | 50 tests       | 130-092-055 |
|  |                       |           | 2×50 tests     | 130-092-056 |
| MACS Control: MC CD3 Pan T Cell Cocktail |                       |           | 50 tests       | 130-092-881 |
| MACS Control: MC CD4 T Cell Cocktail     |                       |           | 50 tests       | 130-092-914 |
| MACS Control: MC CD8 T Cell Cocktail     |                       |           | 50 tests       | 130-092-912 |
| Treg Detection Kit                       |                       | PE        | 100 tests      | 130-094-163 |
|  |                       | APC       | 100 tests      | 130-094-158 |

## Antibodies for flow cytometry: non-human primate cells

| Product                   | Clone, isotype        | Conjugate | Capacity  | Order no.   |
|---------------------------|-----------------------|-----------|-----------|-------------|
| Anti-FoxP3                | 3G3, mouse IgG1       | PE        | 100 tests | 130-093-014 |
|                           |                       | APC       | 100 tests | 130-093-013 |
| FoxP3 Staining Buffer Set |                       |           | 100 tests | 130-093-142 |
| CD2                       | LT2, mouse IgG2b      | PE        | 100 tests | 130-091-115 |
| CD3                       | 10D12, mouse IgG2b    | PE        | 100 tests | 130-092-009 |
|                           |                       | APC       | 100 tests | 130-091-998 |
|                           |                       | Biotin    | 100 tests | 130-092-008 |
| CD4                       | M-T466, mouse IgG1    | FITC      | 100 tests | 130-080-501 |
|                           |                       | PE        | 100 tests | 130-091-231 |
|                           |                       | APC       | 100 tests | 130-091-232 |
| CD6                       | M-T411, mouse IgG1    | FITC      | 100 tests | 130-091-482 |
|                           |                       | PE        | 100 tests | 130-091-233 |
|                           |                       | APC       | 100 tests | 130-091-234 |
| CD8                       | BW135/80, mouse IgG2a | FITC      | 100 tests | 130-080-601 |
|                           |                       | PE        | 100 tests | 130-091-084 |
|                           |                       | APC       | 100 tests | 130-091-076 |
|                           |                       | VioBlue   | 100 tests | 130-094-152 |
|                           |                       | PerCP     | 100 tests | 130-094-972 |
| CD25                      | 4E3, mouse IgG2b      | PE        | 100 tests | 130-091-024 |
|                           |                       | APC       | 100 tests | 130-092-858 |
|                           |                       | Biotin    | 100 tests | 130-091-235 |
| CD27                      | M-T271, mouse IgG1    | FITC      | 100 tests | 130-093-184 |
|                           |                       | PE        | 100 tests | 130-093-185 |
|                           |                       | APC       | 100 tests | 130-093-186 |
|                           |                       | Biotin    | 100 tests | 130-093-196 |
| CD28                      | 15E8, mouse IgG1      | PE        | 100 tests | 130-092-921 |
|                           |                       | APC       | 100 tests | 130-092-923 |
|                           |                       | Biotin    | 100 tests | 130-092-955 |

| Product | Clone, isotype         | Conjugate | Capacity       | Order no.   |
|---------|------------------------|-----------|----------------|-------------|
| CD39    | MZ18-23C8, mouse IgG1  | FITC      | 100 tests      | 130-093-502 |
|         |                        | PE        | 100 tests      | 130-093-503 |
|         |                        | APC       | 100 tests      | 130-093-504 |
|         |                        | Biotin    | 100 tests      | 130-093-505 |
|         |                        | pure      | 100 µg in 1 mL | 130-093-506 |
| CD40    | HB14, mouse IgG1       | PE        | 100 tests      | 130-094-135 |
|         |                        | APC       | 100 tests      | 130-094-137 |
|         |                        | Biotin    | 100 tests      | 130-094-142 |
| CD45    | MB4-6D6, mouse IgG1    | FITC      | 100 tests      | 130-091-898 |
|         |                        | PE        | 100 tests      | 130-091-897 |
|         |                        | APC       | 100 tests      | 130-091-900 |
|         |                        | Biotin    | 100 tests      | 130-091-901 |
| CD45RA  | T6D11, mouse IgG2b     | FITC      | 100 tests      | 130-092-247 |
|         |                        | PE        | 100 tests      | 130-092-248 |
|         |                        | APC       | 100 tests      | 130-092-249 |
| CD49d   | MZ18-24A9, mouse IgG2b | FITC      | 100 tests      | 130-093-283 |
|         |                        | PE        | 100 tests      | 130-093-282 |
|         |                        | APC       | 100 tests      | 130-093-281 |
|         |                        | Biotin    | 100 tests      | 130-093-280 |
|         |                        | pure      | 100 µg in 1 mL | 130-093-279 |
| CD69    | FN50, mouse IgG1       | FITC      | 100 tests      | 130-092-166 |
|         |                        | PE        | 100 tests      | 130-092-160 |
|         |                        | APC       | 100 tests      | 130-092-159 |
|         |                        | Biotin    | 100 tests      | 130-092-161 |
| CD127   | MB15-18C9, mouse IgG2a | FITC      | 100 tests      | 130-094-888 |
|         |                        | PE        | 100 tests      | 130-094-889 |
|         |                        | APC       | 100 tests      | 130-094-890 |
|         |                        | Biotin    | 100 tests      | 130-094-891 |
|         |                        | pure      | 100 µg in 1 mL | 130-094-942 |

## Antibodies for flow cytometry: mouse cells

| Product                   | Clone, isotype         | Conjugate | Capacity       | Order no.   |
|---------------------------|------------------------|-----------|----------------|-------------|
| Anti-FoxP3                | 3G3, mouse IgG1        | PE        | 100 tests      | 130-093-014 |
|                           |                        | APC       | 100 tests      | 130-093-013 |
| FoxP3 Staining Buffer Set |                        |           | 100 tests      | 130-093-142 |
| Anti-GITR                 | DTA-1, rat IgG2b       | PE        | 100 tests      | 130-092-469 |
|                           |                        | APC       | 100 tests      | 130-092-470 |
|                           |                        | pure      | 100 µg in 1 mL | 130-092-630 |
| CD3ε                      | 145-2C11, hamster IgG1 | FITC      | 100 tests      | 130-092-962 |
|                           |                        | PE        | 100 tests      | 130-092-976 |
|                           |                        | APC       | 100 tests      | 130-092-977 |
|                           |                        | Biotin    | 100 tests      | 130-093-021 |
| CD4                       | GK1.5, rat IgG2b       | FITC      | 100 tests      | 130-091-608 |
|                           |                        | PE        | 100 tests      | 130-091-607 |
|                           |                        | APC       | 100 tests      | 130-091-611 |
| CD8a                      | 53-6.7, rat IgG2a      | FITC      | 100 tests      | 130-091-605 |
|                           |                        | PE        | 100 tests      | 130-091-603 |
|                           |                        | APC       | 100 tests      | 130-091-606 |
|                           |                        | VioBlue   | 100 tests      | 130-094-360 |
| CD25                      | 7D4, rat IgM           | PE        | 100 tests      | 130-091-013 |
|                           |                        | APC       | 100 tests      | 130-093-734 |
|                           |                        | Biotin    | 100 tests      | 130-092-569 |

| Product                                 | Clone, isotype          | Conjugate | Capacity       | Order no.   |
|---|-------------------------|-----------|----------------|-------------|
| CD28                                    | 37.51, hamster IgG2     | PE        | 100 tests      | 130-093-180 |
|   |                         | Biotin    | 100 tests      | 130-093-181 |
| CD40                                    | FGK45.5, rat IgG2a      | PE        | 100 tests      | 130-092-848 |
|   |                         | APC       | 100 tests      | 130-092-847 |
| CD45                                    | 30F11, rat IgG2b        | Biotin    | 100 tests      | 130-092-846 |
|   |                         | FITC      | 100 tests      | 130-091-609 |
|   |                         | PE        | 100 tests      | 130-091-610 |
|   |                         | APC       | 100 tests      | 130-091-811 |
| CD62L                                   | MEL14-H2.100, rat IgG2a | VioBlue   | 100 tests      | 130-092-910 |
|   |                         | FITC      | 100 tests      | 130-091-792 |
|   |                         | PE        | 100 tests      | 130-091-794 |
|   |                         | APC       | 100 tests      | 130-091-805 |
| CD90.1                                  | His51, mouse IgG2a      | FITC      | 100 tests      | 130-094-527 |
|   |                         | PE        | 100 tests      | 130-094-528 |
|   |                         | APC       | 100 tests      | 130-094-525 |
|   |                         | VioBlue   | 100 tests      | 130-094-588 |
|   |                         | Biotin    | 100 tests      | 130-094-526 |
| CD90.2                                  | 30-H12, rat IgG2b       | pure      | 100 µg in 1 mL | 130-094-524 |
|   |                         | FITC      | 100 tests      | 130-091-602 |
|   |                         | PE        | 100 tests      | 130-091-601 |
|   |                         | APC       | 100 tests      | 130-091-790 |
|   |                         | VioBlue   | 100 tests      | 130-094-361 |
| CD127                                   | A7R34, rat IgG2a        | PE        | 100 tests      | 130-094-577 |
|   |                         | Biotin    | 100 tests      | 130-094-583 |
| CD154                                   | MR1, hamster IgG3       | PE        | 100 tests      | 130-092-106 |
|   |                         | APC       | 100 tests      | 130-092-105 |
|   |                         | Biotin    | 100 tests      | 130-092-104 |
| CD154 Detection Cocktail                |                         | PE        | 100 tests      | 130-093-084 |
|   |                         | APC       | 100 tests      | 130-093-083 |
| MACS Control: MC CD4 T Cell Cocktail    |                         |           | 50 tests       | 130-092-916 |
| MACS Control: MC CD8a T Cell Cocktail   |                         |           | 50 tests       | 130-092-915 |
| MACS Control: MC CD90.2 T Cell Cocktail |                         |           | 50 tests       | 130-092-862 |
| Treg Detection Kit                      |                         | PE        | 100 tests      | 130-094-165 |
|   |                         | APC       | 100 tests      | 130-094-164 |

## Products for cell separation: human cells

| Product  | Capacity                      | Order no.   |
|--|-------------------------------|-------------|
| CD2 MicroBeads   | 10 <sup>9</sup> total cells   | 130-091-114 |
| CD3 MicroBeads   | 10 <sup>9</sup> total cells   | 130-050-101 |
| Whole Blood CD3 MicroBeads   | 40 mL whole blood             | 130-090-874 |
| Pan T Cell Isolation Kit II  | 10 <sup>9</sup> total cells   | 130-091-156 |
| CD4 MicroBeads   | 10 <sup>9</sup> total cells   | 130-045-101 |
| CD4 <sup>+</sup> T Cell Isolation Kit II   | 10 <sup>9</sup> total cells   | 130-091-155 |
| Whole Blood CD4 MicroBeads   | 40 mL whole blood             | 130-090-877 |
| CD4 MultiSort Kit  | 10 <sup>9</sup> total cells   | 130-055-101 |
| CD4 <sup>+</sup> CD25 <sup>+</sup> Regulatory T Cell Isolation Kit                           | 10 <sup>9</sup> total cells   | 130-091-301 |
| CD4 <sup>+</sup> CD25 <sup>+</sup> CD127 <sup>dim/-</sup> Regulatory T Cell Isolation Kit II | 10 <sup>9</sup> total cells   | 130-094-775 |
| CD4 <sup>+</sup> CD25 <sup>+</sup> CD45RA <sup>+</sup> Regulatory T Cell Isolation Kit       | 2×10 <sup>9</sup> total cells | 130-093-631 |
| CD4 <sup>+</sup> CD49d <sup>-</sup> Regulatory T Cell Isolation Kit                          | 10 <sup>9</sup> total cells   | 130-094-551 |
| Memory CD4 <sup>+</sup> T Cell Isolation Kit   | 10 <sup>9</sup> total cells   | 130-091-893 |
| Naive CD4 <sup>+</sup> T Cell Isolation Kit II   | 10 <sup>9</sup> total cells   | 130-094-131 |

| Product  | Capacity                      | Order no.   |
|--|-------------------------------|-------------|
| CD4 <sup>+</sup> Effector Memory T Cell Isolation Kit              | 10 <sup>9</sup> total cells   | 130-094-125 |
| CD4 <sup>+</sup> Central Memory T Cell Isolation Kit               | 10 <sup>9</sup> total cells   | 130-094-302 |
| CD4 <sup>+</sup> Recent Thymic Emigrant Isolation Kit              | 10 <sup>9</sup> total cells   | 130-094-299 |
| CD6 MicroBeads   | 10 <sup>9</sup> total cells   | 130-091-264 |
| CD8 MicroBeads   | 10 <sup>9</sup> total cells   | 130-045-201 |
| CD8 <sup>+</sup> T Cell Isolation Kit                              | 10 <sup>9</sup> total cells   | 130-094-156 |
| Whole Blood CD8 MicroBeads   | 40 mL whole blood             | 130-090-878 |
| CD8 MultiSort Kit  | 10 <sup>9</sup> total cells   | 130-055-201 |
| CD8 <sup>+</sup> CD57 <sup>+</sup> T Cell Isolation Kit            | 10 <sup>9</sup> total cells   | 130-093-396 |
| Naive CD8 <sup>+</sup> T Cell Isolation Kit                        | 10 <sup>9</sup> total cells   | 130-093-244 |
| CD8 <sup>+</sup> Memory T Cell Isolation Kit                       | 10 <sup>9</sup> total cells   | 130-094-412 |
| CD8 <sup>+</sup> CD45RA <sup>+</sup> Effector T Cell Isolation Kit | 2×10 <sup>9</sup> total cells | 130-094-485 |
| CD25 MicroBeads II   | 10 <sup>9</sup> total cells   | 130-092-983 |
| CD27 MicroBeads  | 10 <sup>9</sup> total cells   | 130-051-601 |
| CD28 MicroBead Kit   | 10 <sup>9</sup> total cells   | 130-093-247 |
| CD30 MicroBeads  | 10 <sup>9</sup> total cells   | 130-051-401 |
| CD45RA MicroBeads  | 10 <sup>9</sup> total cells   | 130-045-901 |
| CD45RO MicroBeads  | 10 <sup>9</sup> total cells   | 130-046-001 |
| CD57 MicroBeads  | 10 <sup>9</sup> total cells   | 130-092-073 |
| CD62L MicroBeads   | 10 <sup>9</sup> total cells   | 130-091-758 |
| CD69 MicroBead Kit II  | 10 <sup>9</sup> total cells   | 130-092-355 |
| CD127 MicroBead Kit  | 10 <sup>9</sup> total cells   | 130-094-945 |
| CD137 MicroBead Kit  | 10 <sup>9</sup> total cells   | 130-093-476 |
| CD154 MicroBead Kit  | 10 <sup>9</sup> total cells   | 130-092-658 |
| CD294 (CRTH2) MicroBead Kit  | 10 <sup>9</sup> total cells   | 130-091-274 |
| Anti-TCRγ/δ MicroBead Kit  | 10 <sup>9</sup> total cells   | 130-050-701 |
| TCRγ/δ T Cell Isolation Kit  | 10 <sup>9</sup> total cells   | 130-092-892 |
| Anti-CLA MicroBead Kit   | 10 <sup>9</sup> total cells   | 130-092-464 |
| CD4 <sup>+</sup> CLA <sup>+</sup> T Cell Isolation Kit             | 10 <sup>9</sup> total cells   | 130-092-435 |
| Double-negative T Cell Isolation Kit                               | 2×10 <sup>9</sup> total cells | 130-092-614 |
| CD3 <sup>+</sup> CD56 <sup>+</sup> NKT Cell Isolation Kit          | 2×10 <sup>9</sup> total cells | 130-093-064 |

## Products for cell separation: non-human primate cells

| Product  | Capacity                    | Order no.   |
|--|-----------------------------|-------------|
| CD2 MicroBeads   | 10 <sup>9</sup> total cells | 130-091-113 |
| CD3 MicroBead Kit  | 10 <sup>9</sup> total cells | 130-092-012 |
| Pan T Cell Isolation Kit   | 10 <sup>9</sup> total cells | 130-091-993 |
| CD4 MicroBeads   | 10 <sup>9</sup> total cells | 130-091-102 |
| CD4 <sup>+</sup> T Cell Isolation Kit                              | 10 <sup>9</sup> total cells | 130-092-144 |
| CD4 <sup>+</sup> CD25 <sup>+</sup> Regulatory T cell Isolation Kit | 10 <sup>9</sup> total cells | 130-092-984 |
| CD8 MicroBead Kit  | 10 <sup>9</sup> total cells | 130-091-112 |
| CD8 <sup>+</sup> T Cell Isolation Kit                              | 10 <sup>9</sup> total cells | 130-092-143 |
| CD25 MicroBeads  | 10 <sup>9</sup> total cells | 130-091-095 |

## Products for cell separation: mouse cells

| Product                                  | Capacity                      | Order no.   |
|--|-------------------------------|-------------|
| Pan T Cell Isolation Kit II              | 10 <sup>9</sup> total cells   | 130-095-130 |
| CD3ε MicroBead Kit                       | 10 <sup>9</sup> total cells   | 130-094-973 |
| CD4 (L3T4) MicroBeads                    | 2×10 <sup>9</sup> total cells | 130-049-201 |
| CD4 <sup>+</sup> T Cell Isolation Kit II | 10 <sup>9</sup> total cells   | 130-095-248 |

| Product  | Capacity                      | Order no.   |
|--|-------------------------------|-------------|
| CD4 <sup>+</sup> CD25 <sup>+</sup> Regulatory T Cell Isolation Kit | 10 <sup>9</sup> total cells   | 130-091-041 |
| CD4 <sup>+</sup> CD62L <sup>+</sup> T Cell Isolation Kit II        | 10 <sup>9</sup> total cells   | 130-093-227 |
| CD5 (Ly-1) MicroBeads  | 2×10 <sup>9</sup> total cells | 130-049-301 |
| CD8 (Ly-2) MicroBeads  | 2×10 <sup>9</sup> total cells | 130-049-401 |
| CD8a <sup>+</sup> T Cell Isolation Kit II                          | 10 <sup>9</sup> total cells   | 130-095-236 |
| CD25 MicroBead Kit   | 10 <sup>9</sup> total cells   | 130-091-072 |
| CD62L (L-selectin) MicroBeads                                      | 2×10 <sup>9</sup> total cells | 130-049-701 |
| CD90.1 MicroBeads  | 2×10 <sup>9</sup> total cells | 130-094-523 |
| CD90.2 MicroBeads  | 2×10 <sup>9</sup> total cells | 130-049-101 |
| CD154 Enrichment and Detection Kit                                 | 10 <sup>9</sup> total cells   | 130-093-129 |
| TCR γ/δ <sup>+</sup> T Cell Isolation Kit                          | 2×10 <sup>9</sup> total cells | 130-092-125 |

## Products for cell separation: rat cells

| Product                       | Capacity                      | Order no.   |
|-------------------------------|-------------------------------|-------------|
| Anti-T Cell (OX52) MicroBeads | 10 <sup>9</sup> total cells   | 130-090-320 |
| CD4 MicroBeads                | 10 <sup>9</sup> total cells   | 130-090-319 |
| CD8a MicroBeads               | 10 <sup>9</sup> total cells   | 130-090-318 |
| CD90.1 MicroBeads             | 2×10 <sup>9</sup> total cells | 130-094-523 |
| CD134 (OX40) MicroBeads       | 10 <sup>9</sup> total cells   | 130-090-497 |
| Anti-TCRγ/δ MicroBeads        | 10 <sup>9</sup> total cells   | 130-090-496 |

## Products for T cell stimulation: human cells

| Product  | Clone, isotype    | Conjugate | Capacity   | Order no.   |
|--|-------------------|-----------|--|-------------|
| Anti-GITR – functional grade, human                  | DT5D3, mouse IgG1 | pure      | 0.5 mg in 0.5 mL   | 130-093-052 |
| Anti-Biotin MACSiBead™ Particles, cell culture grade |                   |           |  | 130-092-357 |
| T Cell Activation/Expansion Kit                      |                   |           |  | 130-091-441 |
| Treg Suppression Inspector                           |                   |           |  | 130-092-909 |
| CytoStim   |                   |           | 200 µL for stimulation of 10 <sup>8</sup> total cells    | 130-092-172 |
| CytoStim   |                   |           | 1 mL for stimulation of 5×10 <sup>8</sup> total cells    | 130-092-173 |
| CD2 – functional grade                               | LT2, mouse IgG2b  | Biotin    | 100 µg in 1 mL   | 130-093-376 |
| CD3 – functional grade                               | OKT3, mouse IgG2A | Biotin    | 100 µg in 1 mL   | 130-093-377 |
|  |                   | pure      | 100 µg in 1 mL   | 130-093-387 |
| CD28 – functional grade                              | 15E8, mouse IgG1  | Biotin    | 100 µg in 1 mL   | 130-093-386 |
|  |                   | pure      | 100 µg in 1 mL   | 130-093-375 |
| CD40 – functional grade, human                       | HB14, mouse IgG1  | pure      | 100 µg in 1 mL   | 130-094-133 |
| CMV pp65 Recombinant Protein                         |                   |           | 200 µL for stimulation of 10 <sup>8</sup> total cells    | 130-091-824 |
|  |                   |           | 2×1 mL for stimulation of 10 <sup>9</sup> total cells    | 130-091-823 |
| PepTivator – AdV5 Hexon                              |                   |           | 6 nmol/peptide for stimulation of 10 <sup>8</sup> cells  | 130-093-495 |
|  |                   |           | 60 nmol/peptide for stimulation of 10 <sup>9</sup> cells | 130-093-496 |
| PepTivator – CMV IE-1                                |                   |           | 6 nmol/peptide for stimulation of 10 <sup>8</sup> cells  | 130-093-493 |
|  |                   |           | 60 nmol/peptide for stimulation of 10 <sup>9</sup> cells | 130-093-494 |
| PepTivator – CMV pp65                                |                   |           | 6 nmol/peptide for stimulation of 10 <sup>8</sup> cells  | 130-093-438 |
|  |                   |           | 60 nmol/peptide for stimulation of 10 <sup>9</sup> cells | 130-093-435 |

| Product                     | Clone, isotype | Conjugate | Capacity   | Order no.   |
|-----------------------------|----------------|-----------|--|-------------|
| PepTivator - EBV BZLF1      |                |           | 6 nmol/peptide for stimulation of 10 <sup>8</sup> cells  | 130-093-611 |
|                             |                |           | 60 nmol/peptide for stimulation of 10 <sup>9</sup> cells | 130-093-612 |
| PepTivator - EBV EBNA-1     |                |           | 6 nmol/peptide for stimulation of 10 <sup>8</sup> cells  | 130-093-613 |
|                             |                |           | 60 nmol/peptide for stimulation of 10 <sup>9</sup> cells | 130-093-614 |
| PepTivator - gp100/Pmel17   |                |           | 6 nmol/peptide for stimulation of 10 <sup>8</sup> cells  | 130-094-449 |
|                             |                |           | 60 nmol/peptide for stimulation of 10 <sup>9</sup> cells | 130-094-450 |
| PepTivator - Melan-A/MART-1 |                |           | 6 nmol/peptide for stimulation of 10 <sup>8</sup> cells  | 130-094-597 |
|                             |                |           | 60 nmol/peptide for stimulation of 10 <sup>9</sup> cells | 130-094-477 |
| PepTivator - Survivin 1     |                |           | 6 nmol/peptide for stimulation of 10 <sup>8</sup> cells  | 130-094-444 |
|                             |                |           | 60 nmol/peptide for stimulation of 10 <sup>9</sup> cells | 130-094-443 |
| PepTivator - Tyrosinase     |                |           | 6 nmol/peptide for stimulation of 10 <sup>8</sup> cells  | 130-094-445 |
|                             |                |           | 60 nmol/peptide for stimulation of 10 <sup>9</sup> cells | 130-094-446 |

## Products for T cell stimulation: non-human primate cells

| Product                         | Clone, isotype   | Conjugate | Capacity  | Order no.   |
|---------------------------------|------------------|-----------|---|-------------|
| T Cell Activation/Expansion Kit |                  |           |   | 130-092-919 |
| CytoStim                        |                  |           | 200 µL for stimulation of 10 <sup>8</sup> total cells | 130-094-447 |
|                                 |                  |           | 1 mL for stimulation of 5×10 <sup>8</sup> total cells | 130-094-442 |
| CD40 – functional grade, human  | HB14, mouse IgG1 | pure      | 100 µg in 1 mL  | 130-094-133 |

## Products for T cell stimulation: mouse cells

| Product                         | Clone, isotype         | Conjugate | Capacity       | Order no.   |
|---------------------------------|------------------------|-----------|----------------|-------------|
| Anti-GITR – functional grade    | DTA-1, rat IgG2b       | pure      | 1 mg in 0.5 mL | 130-092-656 |
|                                 |                        | pure      | 100 µg in 1 mL | 130-092-655 |
| CD3ε – functional grade         | 145-2C11, hamster IgG1 | Biotin    | 100 µg in 1 mL | 130-093-179 |
|                                 |                        | pure      | 500 µg in 1 mL | 130-092-973 |
| CD28 – functional grade         | 37.51, hamster IgG2    | Biotin    | 100 µg in 1 mL | 130-093-183 |
|                                 |                        | pure      | 100 µg in 1 mL | 130-093-182 |
| CD40 – functional grade         | FGK45.5, rat IgG2a     | pure      | 1 mg in 0.5 mL | 130-093-023 |
|                                 |                        | pure      | 100 µg in 1 mL | 130-093-022 |
| CD127 – functional grade        | A7R34, rat IgG2a       | pure      | 1 mg in 0.5 mL | 130-094-828 |
| T Cell Activation/Expansion Kit |                        |           |                | 130-093-627 |



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