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# CLONALLY EXPANDED, STEM CELL-LIKE MELANOMA-ANTIGEN SPECIFIC CD8 MEMORY CELLS CAN BE DETECTED IN HEALTHY HUMANS

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**We used four-color ImmunoSpot® assays, in conjunction with peptide pools that cover the sequence of tyrosinase (Tyr), MAGE-3, Melan/MART-1, gp100, and NY-ESO-1 to charact erize the melanoma antigen (MA)-specific CD8 cell repertoire in PBMC of 40 healthy human donors (HD). Tyr triggered IFN-γ-secreting CD8 cells in 33% HD within 24h of antigen stimulation *ex vivo*. MAGE-3, Melan/MART-1, and gp100 also induced recall responses in 10%, 5%, and 5% of HD, respectively. At this time point, these CD8 cells did not yet produce GzB. However, they engaged in GzB production 72h after antigen stimulation. By this 72h time point ex vivo, 58% of the HD responded to at least one, and typically several, of the MA. A closer characterization of the Tyr-specific CD8 cell repertoire showed it to be of low affinity, and to entail primarily the stem cell-like subpopulation.**

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