Background:
Pretransplant screening in living donor kidney transplantation includes human leukocyte antigen matching, and panel reactive antibodies analysis, whereas T cell mediated antidonor reactivity is not assessed routinely. We investigated T cell reactivity after living related kidney transplantation between two monocygotic twins and in consequence correlated the withdrawal of individual immunosuppressive medication with immunological findings.

Methods:
Immunosuppression consisted of mycofenolate mofetil, glucocorticoid single shot, and induction therapy with antithymocyte immunoglobulin.

Results:
FACS-analysis of recipient peripheral blood cells revealed a normal haemogram after transplantation, showing non-activated CD4 and CD8 cells. Mixed lymphocyte reaction did not reveal donor-specific T cell activity. IFN-γ and IL-10 ELISA of supernatants of recipient cells co-cultivated with donor cells support the lack of Th1 and Th2 cell differentiation.

Conclusion:
Based on immunological findings on day 5 and 20 MMF-therapy was reduced and stopped. Immunological monitoring on day 90 confirmed the absence of immune reactions directed against donor tissue.