

It was shown that there are about 150 molecules of CTLA-4 on one T cell ($=150 \cdot 10^3$ molecules/kcell) [PMID: 19479036]. It is assumed that CTLA-4 expression on CD4 T cells is similar to expression on CD8 T cells. Thus:

$$c_{th0_ctla4} = c_{cd8_ctla4} = (1.5 \cdot 10^5 \text{ [molecules/kcell]}) / (6 \cdot 10^{23} \text{ [molecules/mol]}) \\ = 2.5 \cdot 10^{-19} \text{ [mol/kcell]} = 2.5 \cdot 10^{-7} \text{ [pmol/kcell]}$$

where $6 \cdot 10^{23}$ molecules/mol - Avogadro's number