

Table 2 | **Estimated *in vivo* activities of molecules involved in MHC class-I-antigen presentation**

<b>Molecule</b>	<b>Activity</b>	<b>Copies per cell*</b>	<b>References</b>
Proteasome	11 substrates per second per proteasome	800,000	66
Cytosolic peptidases	1 amino-terminal amino acid per 1–2 seconds	N.D.	7
TAP	2–5 peptides per second per TAP molecule	~10,000	10
MHC class I	Binding at $2 \times 10^6 \text{ M}^{-1}$ per second	50,000–100,000; ~2–5% in the ER	91
ERAP1	N.D.	N.D.	–

\*These values are expected to vary between different cell types and different physiological and pathological states. ER, endoplasmic reticulum; ERAP1, ER aminopeptidase 1; N.D., not determined; TAP, transporter for antigen processing.