



Trends in Immunology

Figure 2. A Simple Illustration of MHC I Antigen Presentation. Antigens are degraded by the proteasome to yield peptide fragments. These peptides are then translocated from the cytosol into the endoplasmic reticulum (ER) lumen where MHC I waiting for peptides is retained by a series of chaperones including the dedicated chaperone tapasin in the peptide-loading complex. A second dedicated chaperone [tapasin-binding protein related (TAPBPR)] can further optimize the peptides in MHC I. Only MHC I with optimal peptides is allowed to leave the ER to present the peptide fragments at the cell surface to CD8⁺ T cells (CTL).