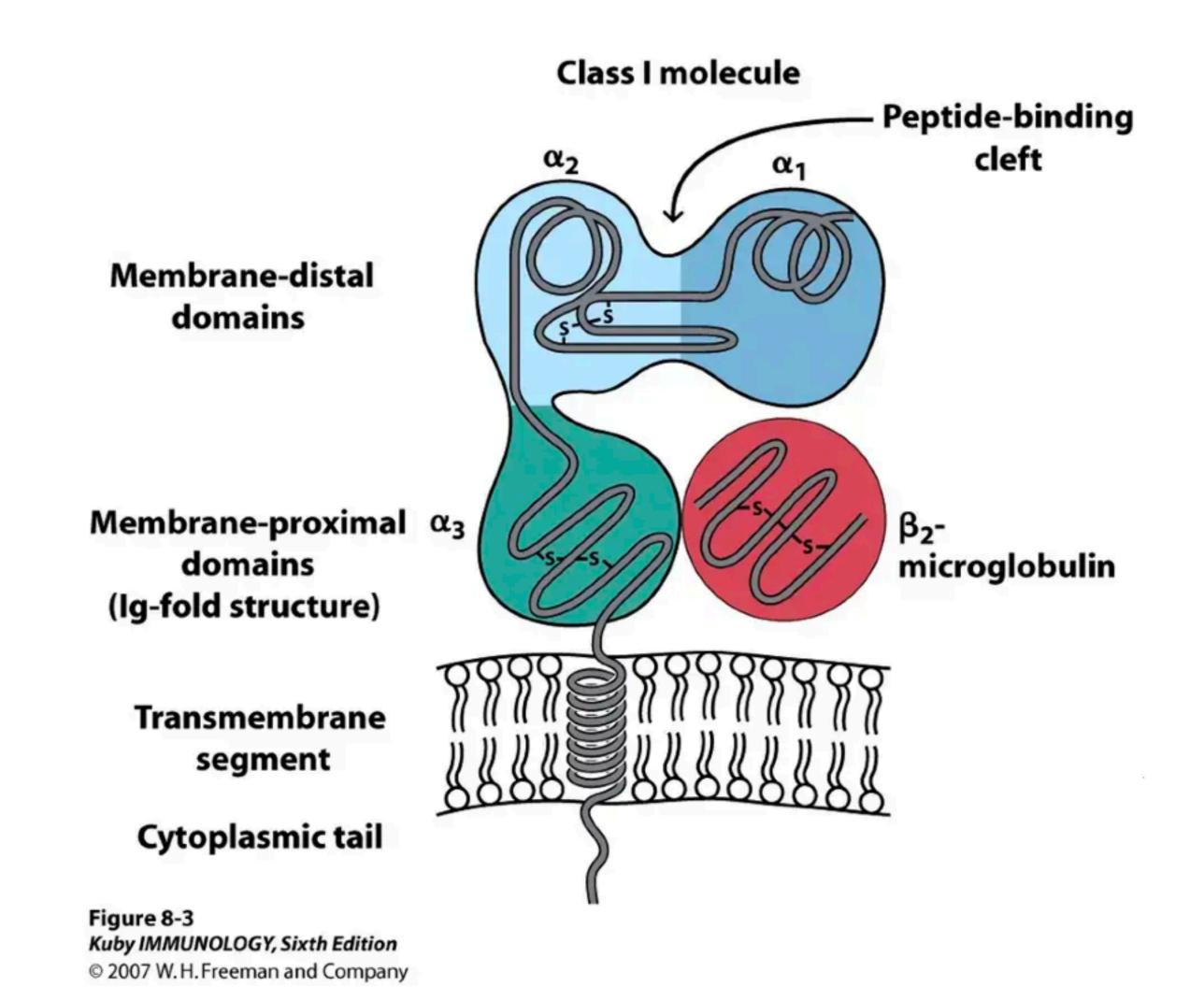
## MHC Class 1 Molecules

- Present linear foreign peptides which are most commonly 9 or 10 amino acids long
- Anchor sites (2 and 9) are usually important for binding and recognition
- Mutations which alter the peptide can hinder or prevent CTL response activation



## Rapid SIV sequence evolution in macaques in response to CTL-driven selection

- SIV: the only animal model of HIV (rhesus macaques)
- Experimental infection with MHC-matched strain of SIV
- Virus sequenced from a sample 2 weeks post infection
- Only variation was in an epitope recognized by the MHC
  - CTL escape

•	10	20	30	40	50	60	70	80	90	
	METPLREQENSLES	SNERSSCISE	ada <mark>stpesanl</mark>	GEEILSQLY	RPLEACYNTC	YCKKCCYHCQ:	FCFLKKGLGI	CYEQSRKRRR	TPKKAKANTSSASN	
96114			<mark></mark>							(7/9)
		н	· · · <mark>· · · · · · · · · · · · · · · · </mark>							(1/9) (1/9)
			P							(4/10
96118			<mark>ь</mark>							(3/10
										(1/10 (1/10
			<mark> Q</mark>							(1/10