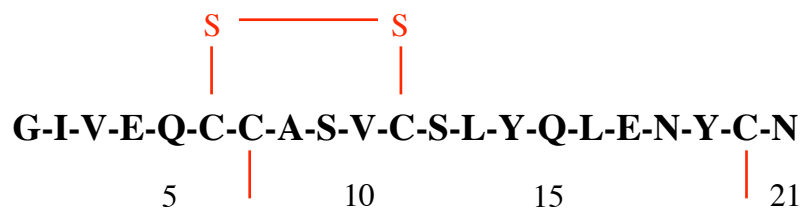


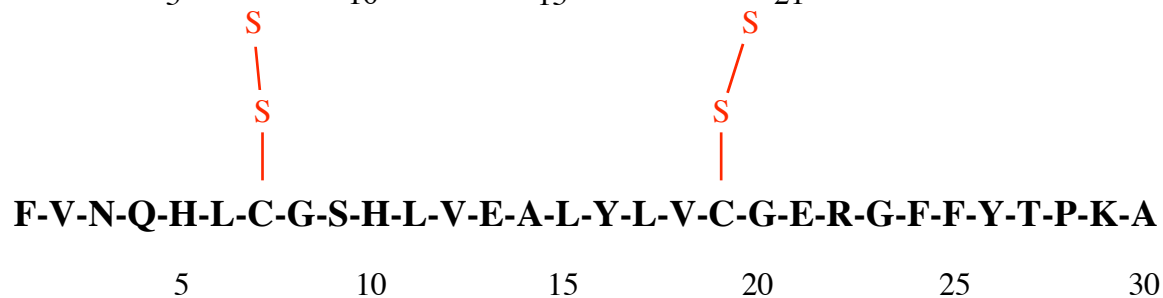
Chemistry 334

Primary Structure of Bovine Insulin

A chain



B chain



Note: The groups that are highlighted in red are individual cystine sulfur atoms that compose the three disulfide bonds of bovine insulin. The α -amino acid, serine (one-letter symbol: S), exists at positions 9 and 12 of the A chain, and position 9 of the B chain.

Two of bovine insulin's disulfides are interchain linkages. The third disulfide is an intrachain linkage.