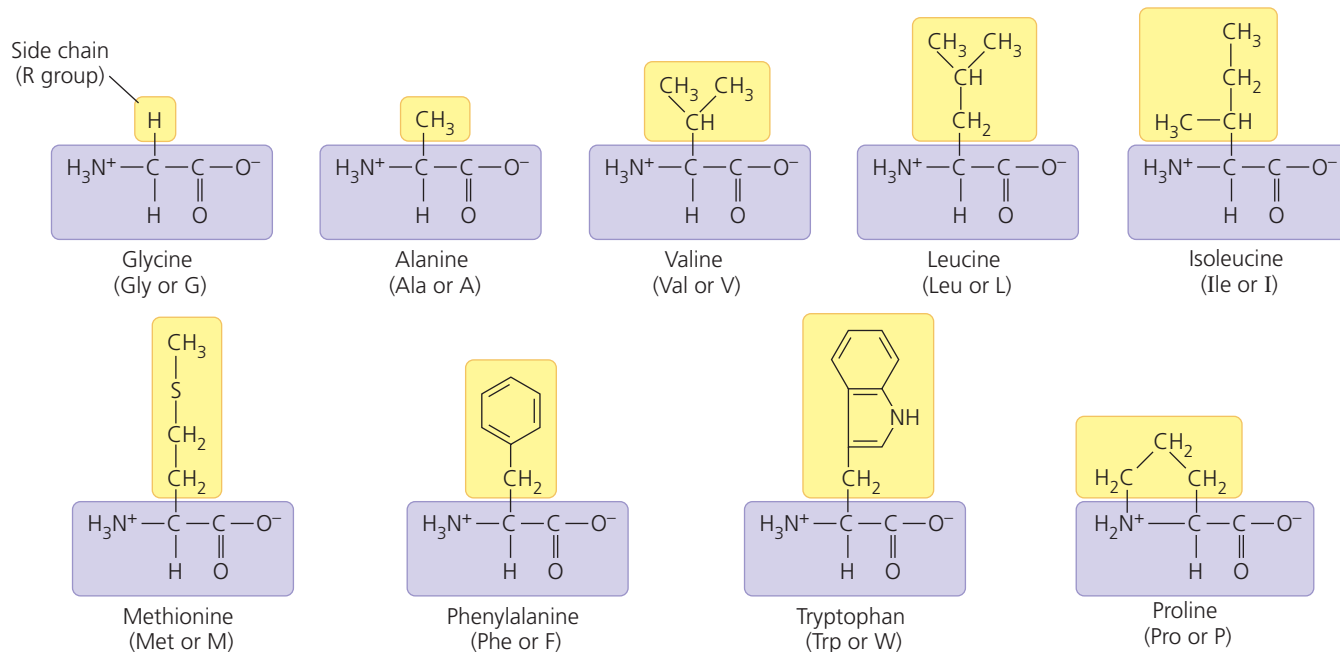
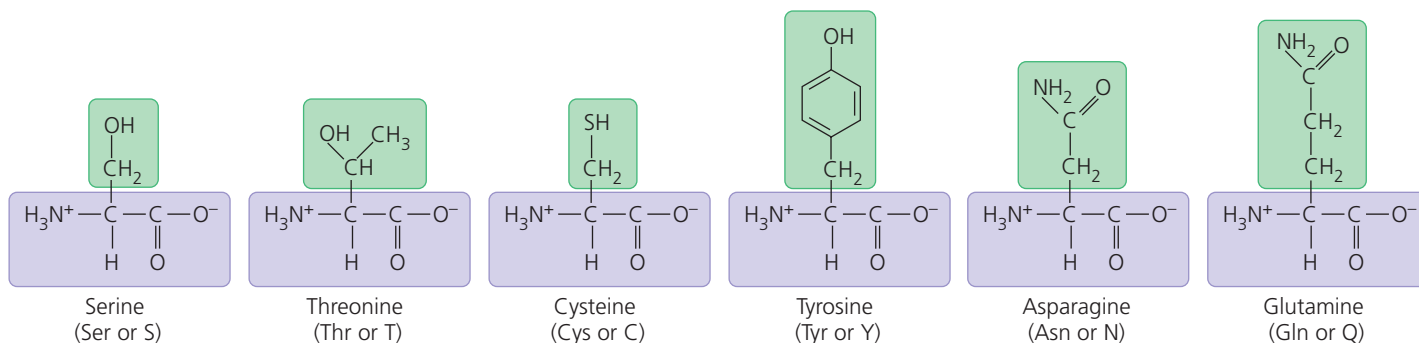


▼ **Figure 5.16 The 20 amino acids of proteins.** The amino acids are grouped here according to the properties of their side chains (R groups) and shown in their prevailing ionic forms at pH 7.2, the pH within a cell. The three-letter and one-letter abbreviations for the amino acids are in parentheses. All amino acids used in proteins are L enantiomers, the form shown here (see Figure 4.7).

Nonpolar side chains; hydrophobic



Polar side chains; hydrophilic



Electrically charged side chains; hydrophilic

