

**Proteins Primary structure**  
Chapter 5 Learning Objectives

*By the end of the chapter you should be able to:*

1. Understand how a peptide bond is made and broken (dehydration and hydrolysis)
2. Define the N and C terminus on a peptide
3. Explain what a subunit is.
4. Define primary structure
5. Be able describe the factors involved in stabilization of a protein
6. Know the general approach to purifying proteins
7. Know the function of several important peptides
8. Understand the basic concepts in chromatography (what are the main components of a chromatography system, what is a stationary phase vs. mobile phase)
9. Relate the pI of a protein (isoelectric point) to the importance of ion exchange chromatography
10. Describe affinity chromatography works and the function of the spacer arm.
11. Know examples of the most common ion exchange resins
12. Explain the concepts of exclusion volume and void volume in size exclusion chromatography
13. Understand the differences in density gradient and differential centrifugation
14. Be able to decide how to select a starting material for purification of a protein
15. Explain the means that native and denatured PAGE separate proteins
16. Understand the differences between mono and polyclonal antibodies
17. Describe typical uses of antibodies in biochemistry