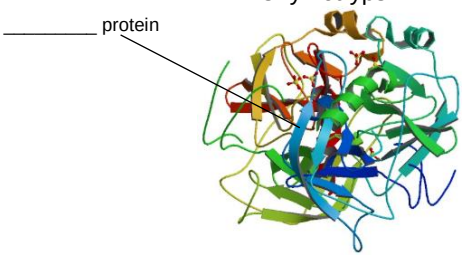
CONCEPT: SIMPLE VS. CONJUGATED PROTEINS

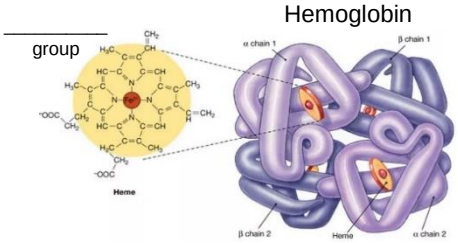
- _____ *proteins*: only contain amino acid residues (but no other chemical components).
- _____ *proteins*: contain amino acid residues & other permanently associated chemical components.
  - □ *Prosthetic group*: _____ bound _____-amino acid parts of a conjugated protein.

EXAMPLE: Simple vs. conjugated proteins.

Chymotrypsin

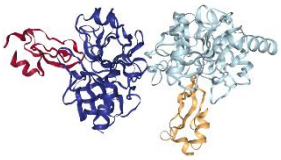


Hemoglobin

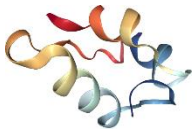


PRACTICE: Which of the following images shows a conjugated protein?

a) Trypsin.

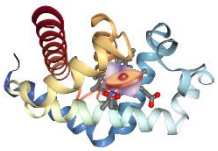


b) Insulin.



c) α-keratin.

d) Myoglobin.



Classes of Conjugated Proteins

- _____ main classes of conjugated proteins that differ by their prosthetic groups.

EXAMPLE:

Conjugated Proteins

Class	Prosthetic Group	Example
1. _____	Lipids	Lipoprotein Lipase
2. Glycoproteins	_____	Immunoglobulin G (IgG)
3. Phosphoproteins	_____ _____	Phosphoprotein Phosphorylase I
4. Hemoproteins	Heme (iron porphyrin)	Myoglobin or _____
5. _____	Flavin nucleotides (Ex. FAD)	Succinate dehydrogenase
6. _____	Iron Zinc Calcium Molybdenum Copper	Ferritin Alcohol dehydrogenase Calmodulin Dinitrogenase Plastocyanin

PRACTICE: Which of the following classes of conjugated proteins does the following protein fall into?

a) Hemoprotein. b) Flavoprotein. c) Simple protein. d) Metalloprotein.