Respiratory Pigments

Respiratory pigments are conjugated proteins four substance are known to function as common respiratory pigments. These are hemoglobin, haemocyanin, chlorocruorin and haemerythrin.

Haemoglobin is a metalloproteinase, a form of conjugated proteins. Each hemoglobin molecule is made up of four (tetrameric) globular protein subunits. Each subunit is composed of a polypetide chain tightly associated with a non-protein prosthetic group called haem group

Haemocyanin is a copper - containing respiratory pigment found in several invertebrates such as molluscs and arthropods. It differs chemically from haemoglobin.

Haemoerythrin - is an iron – containing respiratory pigment found in only a few animals such as sipunculids, Magelona etc. Found in free solution or in blood cells. Myoglobin – is a single – chain (monomeric) globular protein of 153 aminoacids, containing a haem, prosthetic group in the centre.