PROTEOGLYCANS

Proteoglycans are one of the most important constituents of ground substance in connective tissue. Each proteoglycan molecule contains a protein moiety called "core protein". Many glycosaminoglycan (GAG) chains are covalently linked to the core protein to form a proteoglycan molecule. GAGs, also called "mucopolysaccharides", are largely made up of disaccharide repeating units. Proteoglycans come with all sizes and shapes. The following figure shows the general structural feature of a chondroitin sulfate proteoglycan found in artilage.

Hyaluronic Acid-Proteoglycan Aggregate
Structures of Glycosaminoglycans

Hyaluronic acid

Chondroitin 4- or 6-sulfate

Dermatan sulfate

Heparin or Heparan sulfate

Precursor of Heparin or Heparan sulfate

Keratan sulfate