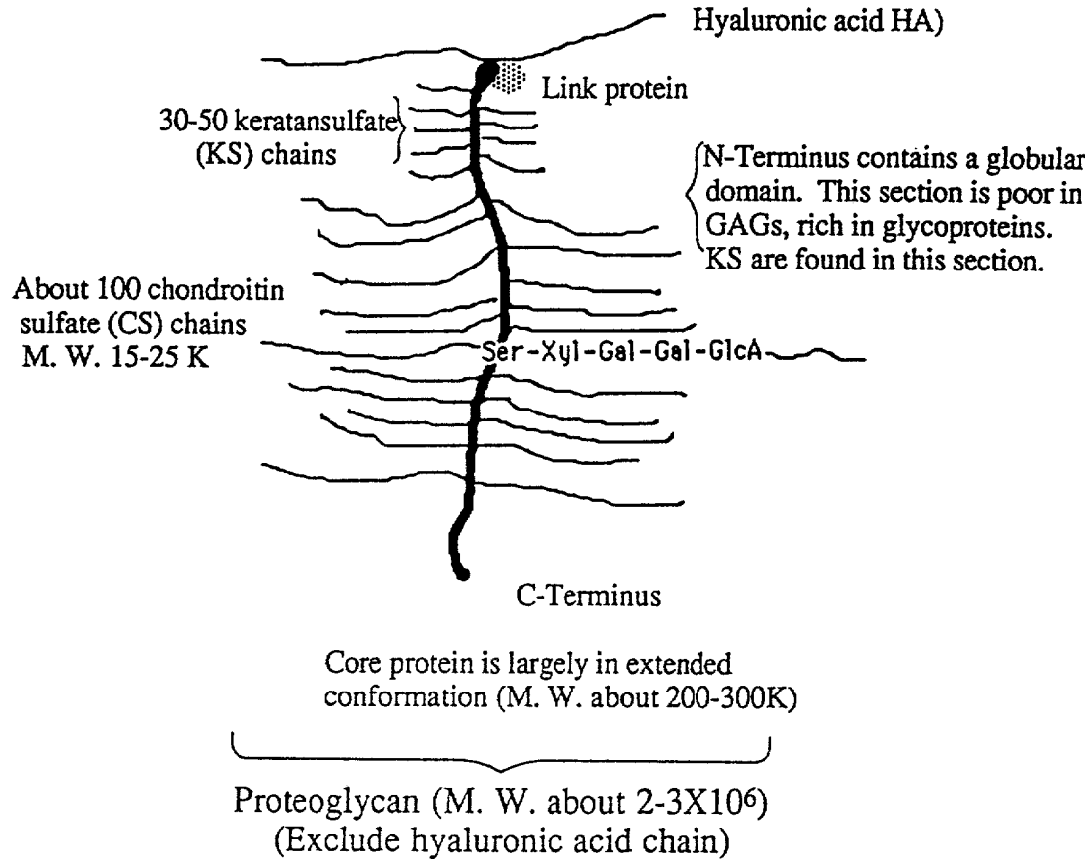
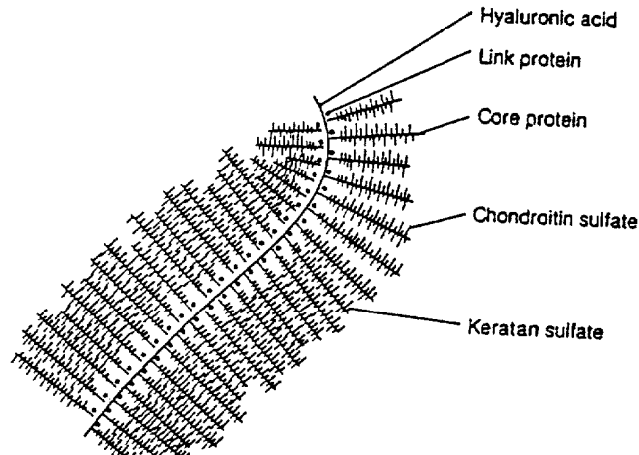


PROTEOGLYCAN

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.

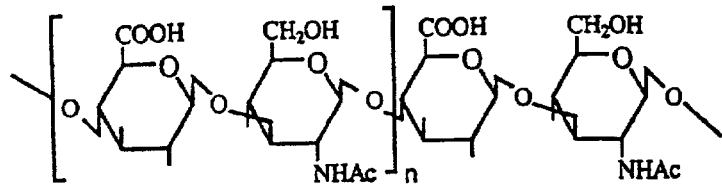


Hyaluronic Acid-Proteoglycan Aggregate

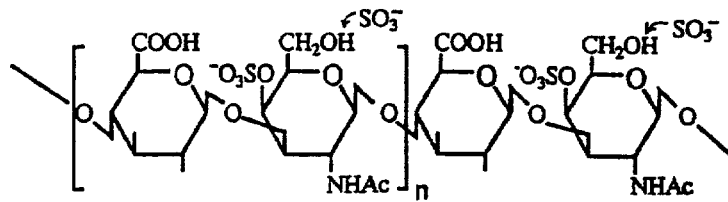


Structures of Glycosaminoglycans

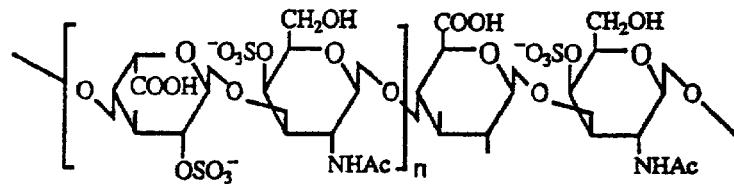
Hyaluronic acid



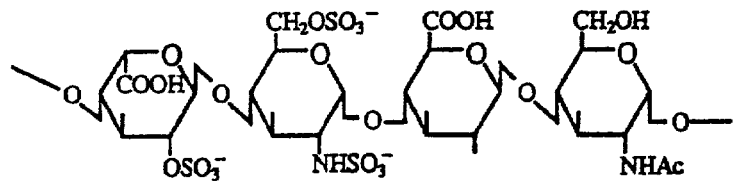
Chondroitin 4- or 6-sulfate



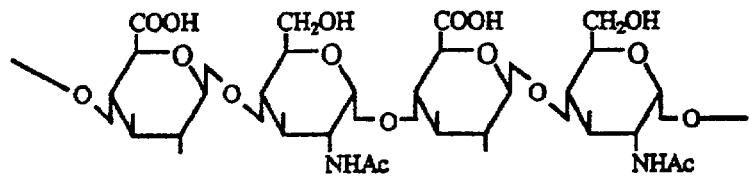
Dermatan sulfate



Heparin or Heparan sulfate



Precursor of Heparin or Heparan sulfate



Keratan sulfate

