

Polysaccharide	Units	Bonds	enzyme	Place	NOTES
Sucrose	α -D-Glucose (Pyr) β -D-Fructose (Fru)	α, β (1-2)			Do-Reducing ends sugar fructose Sacharin \rightarrow cinner Aspartame \rightarrow Neutral Sucralose \rightarrow 300k \hookrightarrow C4 \rightarrow glycolate glucose
Maltose	α -D-Glucose D-Glucose	α (1-4) Cellulose β (1-4) Isomaltose α (1-6)			
Cellulose	β -D-Glucose	β (1-4)	Cellulase (X animals) Fungi in bacteria termites insects yeast	woods & plants	Reducing / reacts with oxidizing 2 anomers \rightarrow
Chitin	N-acetyl / β -D-Glucose Amine	β (1-4)	exoskeleton of insects		
Starch	α -D-Glucose	Amylose α (1-4) Amylopectin \hookrightarrow α (1-4) \hookrightarrow Branches α (1-6)	α -Amylase exoglycosidase inhibase β -Amylase (ends) glucose + Maltose O-branching enzyme glycogen phosphorylase debranching enzyme	Plants	Amylose = helix Starch - iodine complex \rightarrow Dark Blue
Glycogen	α -D-Glucose	α (1-4) \hookrightarrow Branches α (1-6) β (1-4)	glycogen phosphorylase debranching enzyme glucose - 1-D	liver muscle	Glycogen \uparrow water soluble faster

Heteropoly → Bacterial cell wall

N-acetyl-1-D-glucosamine
N-Acetyl-muramic acid
→ across linked + peptides
→ Lactic acid

Amide bond → tetrapeptide

Ala - Gly - Lys - Ala - gly - Leu

Gly

Leu

cellulose

Pectin (galacturonic acid)

non poly saccharide → Lignin

Glycosaminoglycans → at least one is amino sugar, at least one (-)

Heparin (anticoagulant) → chondroitin sulfate → connective tissue

Hyaluronic acid (fluid of joint) → keratan sulfate

Glycoprotein → Poly peptide
→ Carbs

Antibodies → antigen determinants

there are four human blood groups

A → N-acetylglucosamine

B → α-D-galactose

AB → Both kinds

O → neither of these terminal residues is present

Carbs ↑ → Proteoglycans ↑

Accumulation → Hurler's syndrome