When the hydroxy group on the hemiacetal carbon or on the hemiketal carbon in the molecule of a cyclic monosaccharide is replaced with an alkoxy group, the resultant compound is called a glycoside.

eg. 1:

![Diagram of glycoside](image1)

$\alpha$-D-gluco pyranose → a glycoside

eg. 2:

![Diagram of glycoside](image2)

$\beta$-D-fructofuranose → a glycoside

Some authors define glycosides as compounds obtained by replacing the hydroxy group on the hemiacetal carbon or on the hemiketal carbon with any ligand other than hydrogen and classify them as O-glycosides, N-glycosides, C-glycosides, etc. based on the element that attaches the ligand to the ring. IUPAC discourages this practice.

![Diagram of glycoside](image3)

C-glycoside → N-glycoside

see also pyranoside, furanoside, glycosidic link

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