

Table 3. *Carbohydrate residue volumes*
 Bracketted volumes are estimated (see text)

Source	M_r	Molar volume summations [3, 100]	Monosaccharide crystal structures (Methods)	Polysaccharide crystal structures [1]	Densitometry [7] (Methods)
		$\times 10^{-3} \text{ nm}^3$			
Glc	162	164.9	171.9 ± 2.0 (9)	167.3 ± 2.7 (11)	162.7 ± 0.7
Gal	162	164.9	166.8 ± 2.5 (9)	(167.3)	162.2 ± 0.5
Man	162	164.9	170.8 ± 0.4 (3)	163.3 (1)	161.9 ± 0.8
GlcNAc	203	224.5	222.0 ± 2.0 (2)	230.4 ± 3.4 (4)	(216.6)
GalNAc	203	224.5	232.9 (1)	(230.4)	(227.5)
Fuc ^a	146	164.3	160.8 ± 2.9 (2)	=	(155.4)
NeuNAc ^a	290	281.2	326.3 ± 8.8 (2)	=	(320.9)

^a Terminal positions only.

1. Perkins, S. J., Miller, A., Hardingham, T. E. & Muir, H. (1981) *J. Mol. Biol.* 150. 69–95.
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100. Gibbons, R. A. (1972) in *Glycoproteins*, part A, 2nd edn (Gottschalk, A., ed.) pp. 31–140, Elsevier, Amsterdam.