

Table 2.4 . Polysaccharidase and glycosidase activities in different fractions of human faeces obtained from five individuals^a

Substrates	Fraction		
	Extracellular	Extract from washed bacterial cells	Extract from washed bacteria removed from particulate materials by surfactant treatment
Polysaccharidases^b			
Starch	48.20 ± 11.34	4.25 ± 1.16	3.96 ± 1.62
Xylan	ND	0.82 ± 0.18	1.40 ± 0.47
Pectin	0.66 ± 0.15	1.09 ± 0.29	1.14 ± 0.32
Arabinogalactan	0.19 ± 0.05	0.43 ± 0.13	0.79 ± 0.16
Galactomannan	ND	0.06 ± 0.02	ND
Glycosidases^c			
p-Nitrophenyl α-L-arabinofuranoside	65 ± 34	1598 ± 522	2782 ± 573
p-Nitrophenyl β-D-xylopyranoside	102 ± 69	955 ± 153	1986 ± 308
p-Nitrophenyl α-D-galactopyranoside	ND	930 ± 125	832 ± 66
p-Nitrophenyl β-D-galactopyranoside	434 ± 168	2570 ± 520	3231 ± 491
p-Nitrophenyl β-D-galacturonide	ND	4 ± 3	86 ± 47
p-Nitrophenyl β-D-glucuronide	ND	130 ± 38	44 ± 18
p-Nitrophenyl β-D-glucopyranoside	50 ± 35	1581 ± 474	1293 ± 261
p-Nitrophenyl α-D-glucopyranoside	113 ± 73	511 ± 76	586 ± 149
p-Nitrophenyl α-D-mannopyranoside	78 ± 44	16 ± 9	28 ± 14
p-Nitrophenyl β-D-mannopyranoside	20 ± 8	52 ± 23	22 ± 13

Data are from Englyst *et al.* (1987)

^a Results are ± SEM

^b mmol reducing sugar released h⁻¹ mg protein⁻¹

^c nmol p-nitrophenol released h⁻¹ mg protein⁻¹

ND, not detected

Englyst HN, Hay S, Macfarlane GT (1987) Polysaccharide breakdown by mixed populations of human faecal bacteria. *FEMS Microbiol Ecol* 95: 163-171