Table 1. *Kinetic parameters of uptake of galactosides into E. coli ML308*

Uptake was followed by measuring the concentration of 4-methylumbelliferone (for 1) or 2-nitrophenol (for 2) in supernatants or by measuring the radioactivity in pellets (for 3–6) after centrifuging the quenched samples. All experiments were performed in 0.1 M-sodium phosphate buffer, pH 7.0, at 20±0.2°C. The additions were present in both syringes for 30 min before the experiment was commenced. Final cell density was 50 mg dry wt./ml. —, Information not available; N.D., this phase of uptake not observed.

		$V_{max.}^{app.}$ (nmol/s per mg dry wt.)			$K_m^{app.}$ (mM)		
Substrate	Additions	Initial	Steady state	Lit.*	Initial	Steady state	Lit.*
(1) 4-Methylumbelliferyl β-galactoside	None	17	2	—	0.4	0.5	—
(2) 2-Nitrophenyl β-galactoside	None	23±10	4.7±3.1	5	0.3±0.1	1.2±0.3	0.9
	30 mM-NaN_3	28	0.2	—	>5	7.5	—
(3) Lactose	None	15±7	3.1±2.1	3	0.5±0.1	0.7±0.2	0.27
(4) Thiodigalactoside	None	3.4±2.6	0.45±0.35	0.2	0.17±0.05	0.08±0.03	0.04
	Gramicidin	N.D.	0.035	—	N.D.	0.20	—
(5) Melibiose	None	27	3.0	—	0.15	0.4	0.5
	Gramicidin	N.D.	0.2	—	—	0.95	—
(6) 4-Nitrophenyl α-galactoside	None	4	0.17	0.11	<0.05	0.02	0.02
	Gramicidin	N.D.	0.02	—	N.D.	0.04	—

* Literature values taken from Wright *et al.* (1981) and references cited therein.