

TABLE II

Urea Permeability in Human Red Cells at 25°C and pH 7.2

Inhibitor	$C_0^{\text{inhibitor}}$	C_0^{urea}	Permeability	Inhibition
	<i>mM</i>		<i>cm s⁻¹</i>	%
Control		1	$2.67(\pm 0.05) \times 10^{-4}$	—
Phloretin	0.10	1	$8.87(\pm 0.60) \times 10^{-6}$	97.7
—	0.25	1	$2.66(\pm 0.13) \times 10^{-6}$	99.0
—	0.50	1	$1.48(\pm 0.08) \times 10^{-6}$	99.4
Control		100	$2.06(\pm 0.01) \times 10^{-4}$	—
Phloretin	0.10	100	$7.69(\pm 0.87) \times 10^{-6}$	96.3
—	0.25	100	$2.93(\pm 0.19) \times 10^{-6}$	98.6
—	0.50	100	$1.12(\pm 0.05) \times 10^{-6}$	99.5
—	1	100	$0.77(\pm 0.04) \times 10^{-6}$	99.6
Control		750	$0.73(\pm 0.01) \times 10^{-4}$	—
Phloretin	0.10	750	$1.05(\pm 0.01) \times 10^{-5}$	85.6
—	0.25	750	$2.22(\pm 0.11) \times 10^{-6}$	97.0
—	0.50	750	$1.25(\pm 0.04) \times 10^{-6}$	98.3
Control		1	$2.73(\pm 0.14) \times 10^{-4}$	—
PCMBS*	1	1	$2.24(\pm 0.21) \times 10^{-5}$	91.8
DIDS*	0.001	1	$2.86(\pm 0.06) \times 10^{-4}$	5% increase
Control		1	$3.62(\pm 0.14) \times 10^{-4}$	—
NEM*	1	1	$3.98(\pm 0.02) \times 10^{-4}$	10% increase
DTNB*	1	1	$3.99(\pm 0.08) \times 10^{-4}$	10% increase

In experiments with phloretin, both the incubation medium and the efflux medium contained phloretin at the concentration indicated. The asterisk denotes preincubation of the red cells with the compound for 45 min (38°C). Permeability coefficients below $\sim 2 \times 10^{-5} \text{ cm s}^{-1}$ correspond to half-times of exchange $> 1 \text{ s}$, and the rate of [^{14}C]urea efflux was therefore determined by the Millipore-Swinnex filtering technique (Dalmark and Wieth, 1972). The permeability coefficients are average values of two or more experiments. Standard deviations are in parentheses.