Table 3 Transmembrane proteins in cells[a]

Membrane component	Cell	Label	Apparent $D(SPT)$ for mobile fraction	$D(FRAP)$	Comments	Ref.
Cell adhesion molecules						
E-cadherin	Cultured epidermal cells	40 nm Au Ab	0.16	0.34 75% mobile	High Ca^{+2} medium 28% random diffusion 64% corralled ensemble average $D(SPT)$	57
NCAM180	Fibroblasts	30 nm Au Ab	3.7 ± 0.18	18.3 ± 3.1 60% mobile	14% slow diffusion D(slow) = 0.5 21% corralled	93
NCAM140	Muscle	30 nm Au Ab	1.1 ± 0.1	4.7 ± 0.5 70% mobile	22% slow diffusion D(slow) = 0.06 14% hybrid	93
Receptors						
Transferrin receptor	Fibroblasts	40 nm Au transferrin	10 (short-range) 0.24 (long-range)	—	Most receptors confined to $\approx$500 nm for $\approx$30 s durations	68
FcεRI	Rat basophilic leukemia cells	diI-LDL	$\approx$1 (see comment)	5.4 80% mobile	Time-dependent D evaluated at 1 s	36
Major histocompatibility antigens						
H-2D^a Class I	HEPA-OVA cells	40 nm Au Ab	1.3 ± 0.2	2–4		33
HLA-DR Class II	Fibroblasts	R-phycoerythrin Ab	0.001–0.05	—	Also corralled diffusion and directed motion	104

[a]See footnotes a and b of Table 1 and footnote a of Table 2. LDL, low-density lipoprotein.

Footnotes to table 1:

[a]Ab, antibody; Chol, cholesterol; Fl, fluorescein; FM, fluorescent microsphere; GPI, glycosylphosphatidylinositol; MV, multivalent; PC, phosphatidylcholine; PE, phosphatidylethanolamine; POPC, palmitoyloleoyl PC; POPE, palmitoyloleoyl PE; PV, paucivalent; St, streptavidin; TMR, tetramethylrhodamine.
[b]All diffusion coefficients D in units 10^{-10} cm^{2}s^{-1}.

Footnote 'a' of table 2:

NCAM, neural cell adhesion molecule; MHC, major histocompatibility complex.