

Table 1 Summary of the measured diffusion coefficients for the various mRNAs in the nucleus and the cytoplasm

mRNA transcript	Average D_{nuc} ($\mu\text{m}^2 \text{s}^{-1}$)	Maximum D_{nuc} ($\mu\text{m}^2 \text{s}^{-1}$)	Average D_{cyt} ($\mu\text{m}^2 \text{s}^{-1}$)	Maximum D_{cyt} ($\mu\text{m}^2 \text{s}^{-1}$)	Calculated t_{nc} (min)	Measured t_{nc} from live-cell movies (min)
E1	0.023	0.057	0.022	0.045	3.0–7.7	5
E3	0.010	0.024	0.017	0.037	6.9–17.6	20
E6	0.009	0.016	0.011	0.023	8.1–20.6	15–20
½-Mini-Dys	0.004	0.013	0.010	0.027	16.8–43.1	30
½-Mini-Dys + intron	0.005	0.012	0.006	0.020	14.8–37.9	30
Mini-Dys	0.005	0.011	0.008	0.014	13.2–33.7	30–40
Full Dys	0.005	0.012	0.007	0.016	13.9–35.6	30–40

The average D_{nuc} values were used to calculate the travel time through a nucleus with a radius of 5–8 μm . D_{nuc} , nuclear diffusion coefficient; D_{cyt} , cytoplasmic diffusion coefficient; t_{nc} , nucleo-cytoplasmic translocation time.