TABLE 1

Quantities of κ mRNA and major classes of κ nuclear RNA in P3 myeloma cells

κ RNA class ($M_r \times 10^{-6}$†)	Amount/cell‡ (pg $\times 10^{-3}$)	Number of molecules/cell§
Cytoplasmic κ mRNA		
13 S (0·4)	36·0	54,000
Nuclear RNA:		
13 S (0·4)	2·8	4200
24 S (1·6)	1·8	900
40 S (3·5)	3·1	540

† Molecular weight values were determined in denaturing CH_3HgOH/1% agarose gels (Bailey & Davidson, 1976) in relation to pre-rRNA and rRNA standards.

‡ Calculations are based on the assumptions of (1) 20 pg total RNA/cell, (2) poly(A)$^+$ mRNA amounts to 1·5% of total RNA, and (3) nuclear RNA comprises 10% of total RNA (Schibler *et al.*, 1978). Exhaustive hybridizations using a cloned κ cDNA containing V+C regions (pL21-1) indicate that κ mRNA at steady-state averages 12% of total poly(A)$^+$ cytoplasmic RNA (Wall *et al.*, 1978), while the κ mRNA sequences in 13 S, 24 S and 40 S nuclear RNA comprise 0·14%, 0·03% and 0·018%, respectively, of total nuclear RNA. The amounts of 24 S and 40 S κ classes were calculated on the assumption of one κ mRNA equivalent/nuclear RNA molecule:

$$\frac{M_r\ \kappa \text{ nuclear RNA}}{M_r\ \kappa \text{ mRNA}} \times \text{pg } \kappa \text{ mRNA sequences from exhaustive hybridization.}$$

§ Calculated as described by Ross & Knecht (1978):

$$\frac{\text{g/cell } \kappa \text{ RNA species}}{M_r\ \kappa \text{ RNA species}} (6 \times 10^{23}).$$