**Table 3.** *In vitro* comparison between a strong and a weak T7 promoter

|  | A2 | D |
|---|---|---|
| Kinetic constants: | | |
| $k_{on} \left( \dfrac{k_1 k_2}{k_{-1}} \right)$, $M^{-1}$ $sec^{-1}$ | $>9 \times 10^6$ | $9.6 \times 10^5$ |
| $k_{off}$ $(k_{-2})$, $sec^{-1}$ | $1.7 \times 10^{-4}$ | $3.3 \times 10^{-5}$ |
| $k_2$, $sec^{-1}$ | $4 \times 10^{-2}$ | $2.4 \times 10^{-2}$ |
| Apparent equilibrium constants: | | |
| $K_I$, $M^{-1}$ | $>2 \times 10^8$ | $4.1 \times 10^7$ |
| $K_{II}$ | $2.4 \times 10^2$ | $7.2 \times 10^2$ |
| $K_o$, $M^{-1}$ | $>5 \times 10^{10}$ | $3.0 \times 10^{10}$ |

The kinetic constants $k_{on}$ and $k_2$ were evaluated from the slopes and intercepts of Fig. 2. $k_{off}$ was determined by Cech and McClure (18). The equilibrium constants were calculated from the ratios $k_{on}/k_2$ for $K_I$, $k_2/k_{off}$ for $K_{II}$, and $k_{on}/k_{off}$ for $K_o$.