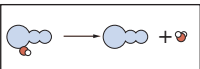


dNTP synthesis



$r_{\text{ribonucleotide reductase}}$

$$\approx \frac{10 \text{ dNTP / sec}}{\text{ribonucleo reductase}}$$

Ge et al. 2003

$L_{\text{genome}} \approx 5 \times 10^6 \text{ base pairs}$ BNID:100269 $N_{\text{dNTPs}} \approx 2L_{\text{genome}} \approx 10^7 \text{ dNTPs}$

$$N_{\text{ribonucleotide reductases}} \approx \frac{10^7 \text{ dNTPs}}{1 \text{ cell}} \times \frac{1 \text{ sec}}{10 \text{ dNTPs}} \times \frac{1 \text{ cell}}{5000 \text{ s}} \approx 200 \text{ ribonucleotide reductases}$$

- replication fork dependence
- estimated value
- Li et al. 2014
- Peebo et al. 2015
- Schmidt et al. 2016
- Valgepea et al. 2013

