

Calculating Concentration of Ribosomes and rRNAs

70S	$1 A_{260} = 23 \text{ pmol/ml} = 62 \text{ ug/ml}$ $1 \text{ pmol} = 2.7 \text{ ug}$ $1 \text{ ug} = 0.37 \text{ pmol}$ $M_r = 2.7 \text{ MD}$
50S	$1 A_{260} = 35 \text{ pmol/ml} = 62 \text{ ug/ml}$ $1 \text{ pmol} = 1.8 \text{ ug}$ $1 \text{ ug} = 0.56 \text{ pmol}$ $M_r = 1.8 \text{ MD}$
30S	$1 A_{260} = 69 \text{ pmol/ml} = 62 \text{ ug/ml}$ $1 \text{ pmol} = 0.9 \text{ ug}$ $1 \text{ ug} = 1.11 \text{ pmol}$ $M_r = 0.9 \text{ MD}$
23S RNA	$1 A_{260} = 42 \text{ pmol/ml} = 40 \text{ ug/ml}$ $1 \text{ pmol} = 0.96 \text{ ug}$ $1 \text{ ug} = 1.04 \text{ pmol}$ $M_r = 960 \text{ kD}$
16S RNA	$1 A_{260} = 78 \text{ pmol/ml} = 40 \text{ ug/ml}$ $1 \text{ pmol} = 0.51 \text{ ug}$ $1 \text{ ug} = 1.96 \text{ pmol}$ $M_r = 510 \text{ kD}$
tRNA ^{Phe}	$1 A_{260} = 1.71 \text{ nmol/ml} = 57.5 \text{ ug/ml}$ $1 \text{ nmol} = 33.6 \text{ ug}$ $1 \text{ ug} = 30 \text{ pmol}$ $M_r = 33.6 \text{ kD}$