

## GeneQuantPro - Quick Instructions

### Checking DNA oligos (use a quartz cuvette)

Optional Press BASE SEQ. Enter the sequence of the oligo. (You can change a variety of parameters by pressing SET UP; see the manual).

1. Press OLIGO.

Optional If you wish, press SET UP to change parameters:

Pathlength	I think all of our cells are 10 mm
Units	$\mu\text{g/mL}$ is probably best. You must enter the base sequence for pmol/ $\mu\text{l}$
Use 320nm	This will subtract the $A_{320}$ from $A_{260}$ and $A_{280}$ (since oligos don't absorb at 320 nm). It is only necessary if the background (320 nm) value seems to be fluctuating.
Dilution factor	Set to 1, the spec will calculate the concentration in the cuvette. If you specify how much you diluted the sample from the stock, it will calculate the concentration of the stock.
Default factor	Sets the extinction coefficient. $33 \mu\text{g/mL}$ is a common approximation for ssDNA oligos.
Calc factor	Shows the calculated extinction coefficient if the base sequence has been specified.
Use default	Over-rides the calculated extinction coefficient if a base sequence has been specified

2. Insert a cuvette containing the reference (e.g., water or TE).

Press SET REF. Wait for the read-out.

3. Insert a cuvette containing your sample. Press OLIGO or ENTER.

Repeat with further samples. To toggle between the graph and the output, press SELECT.

Printing Press PRINT.

Note! If you entered a base sequence, press BASE SEQ and clear it before you walk away from the instrument.

### Checking OD<sub>600</sub> of a culture (use a disposable cuvette)

1. Press CELL CULTURE.

2. Insert a cuvette containing the reference (e.g., water or media). Press SET REF.

3. Insert a cuvette containing your sample. Press CELL CULTURE or ENTER.

Note Because of the small optics of the GeneQuantPro, the amount of scattered light transmitted is greater than on larger instruments, making the OD<sub>600</sub> values seem low. The standard correction factor is 2.0, but, for repeating sensitive experiments, you should probably check the OD<sub>600</sub> on both the GeneQuantPro and the larger instrument, and hand-correct or adjust the correction factor. See the manual for more details.