Lab 2: iTune Device

Biological Materials:

Strain 2-R	NB424	reference output
Strain 2-1	NB425	wk/wk
Strain 2-2	NB426	wk/med
Strain 2-3	NB427	wk/str
Strain 2-4	NB428	med/wk
Strain 2-5	NB429	med/med
Strain 2-6	NB430	med/str
Strain 2-7	NB431	str/wk
Strain 2-8	NB432	str/med
Strain 2-9	NB433	str/str

Reagents:

ampicillin	e.g. Sigma, A0166	100 mg, use at final concentration of 100 mg/liter LB
IPTG	e.g. Sigma, I6758	24 mg, use at final concentration of 24 mg/ml H2O
ONPG	e.g. Sigma, N1127	40 mg, use at a final concentration of 4 mg/ml H2O

Next steps (per student team):

Day 1: grow ONs in LB+A+1mM IPTG (10x2.5 ml cultures in 16x150mm test tubes with caps)
Day 2: run b-gal assay
Day 3: data analysis

Teacher provides:

Consumables

Luria Broth (LB), 25 milliliters
Sterile toothpicks, innoculating loops or sterile tips
Sterile tubes (16x150mm)+ loose caps (10)
Glass test tubes (13x100mm) (22)
Cuvettes for the spectrophotometer, if needed (22)
Pipet tips
Latex or nitrile gloves
Arm & Hammer baking soda (1g)
Clear liquid dish soap, like SoftSoap (one squirt)
Soda Ash, like what's used to tie dye T-shirts, (5.3g)
50 ml conical tubes for bicarb, soap and soda ash soln's (3)
Distilled water, or bottled like Poland Spring

Equipment

Roller drum or shaker at 37° for growing liquid overnights
Spectrophotometer or turbidity stds*
Vortex
Pipets (5 ml) + bulbs or pipet-aids
Pipetmen (P1000, P200, P20)
Timer
Sharpie pens
Test tube rack for holding small tubes during rxn

*Turbidity stds require
1.75 ml $BaCl_2$
80 ml 1% H_2SO_4