



PEMAX_{TM} Monodose
TBC-Biomarker Kit

(Workflow for Cepheid's GeneXpert[®] platform)

vPCR in sputum samples

Each kit (Cat. No. 4900013025) is suitable for 25 samples and contains:

25 tubes : PEMAX[™] Reagent with Reaction Buffer + (blue cap)

25 tubes: for control sample (white cap)



This product has been manufactured for Research Use Only.

vPCR in sputum samples



For viability PCR: viable cell levels



For control PCR: total cell levels

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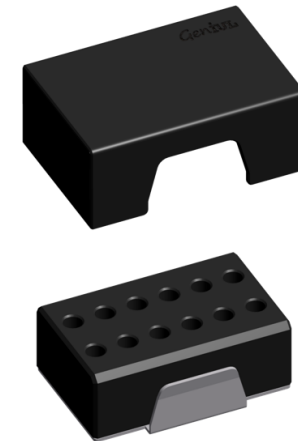
vPCR in sputum samples

Not provided but necessary:



Cat. No. 9000700

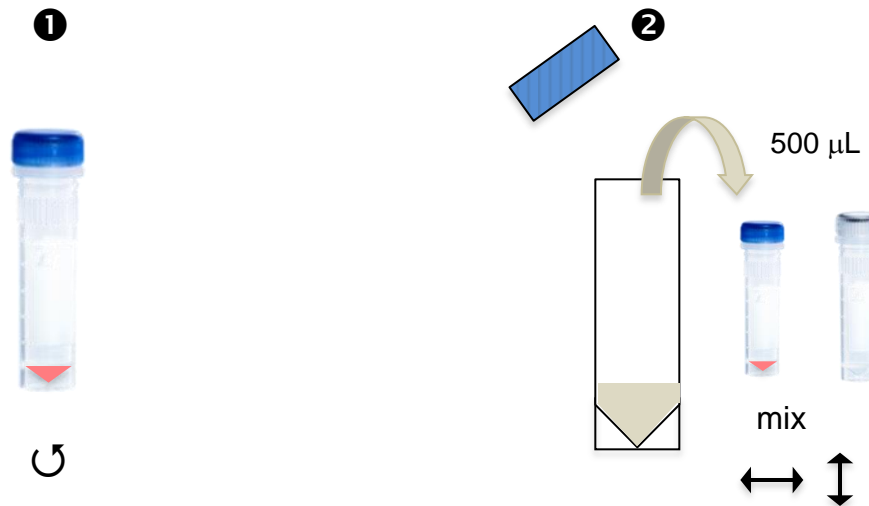
And recommendable:



Dark Box , to protect
reaction tubes from light
Cat. No. 90001200

vPCR in sputum samples

Step 1: Sample treatment



- 1) Perform short spin of monodose PEMAX tubes. Some of the product may have been dislodged during shipment.
- 2) Transfer 500 µL of sputum sample (previously decontaminated with NALC and neutralized with phosphate buffer) to **sample and control tubes**, mix thoroughly.

vPCR in sputum samples

Step 2: Incubation on darkness

30 min, 37°C



(Previously heat the Dark Box to 37°C)

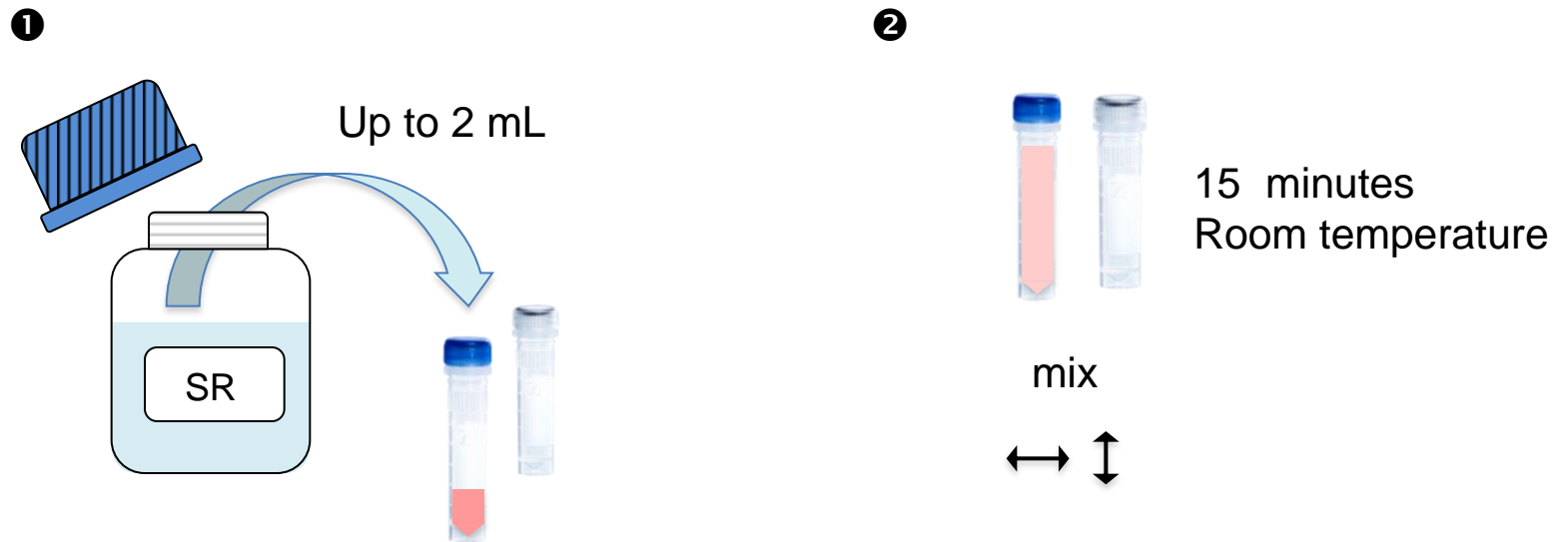
Step 3: Photoactivation

15 min, 100% power



vPCR in sputum samples

Step 4: Xpert MTB/RIF Sample Reagent (SR) addition



- 1) Add Sample Reagent up to 2 mL to **each tube**.
- 2) Mix vigorously and incubate 15 minutes at room temperature.

vPCR in sputum samples

Step 5: Cepheid Xpert® MTB/RIF Assay



Transfer 2 mL of sample into the open port of Xpert MTB/RIF cartridge.

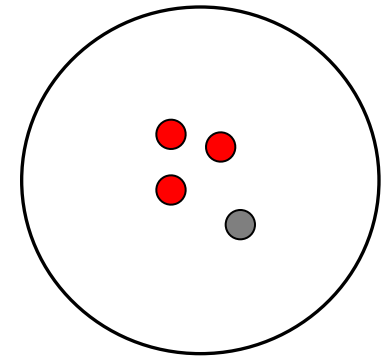
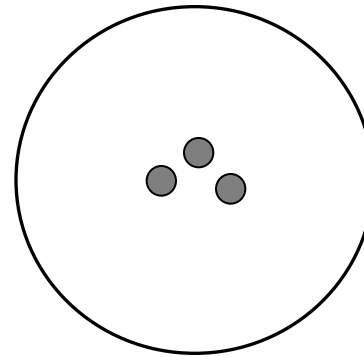
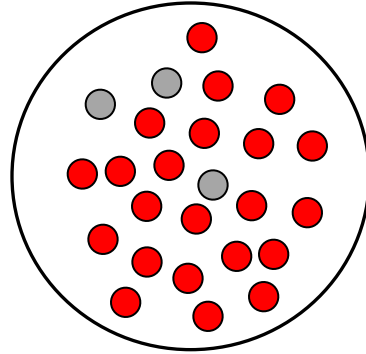
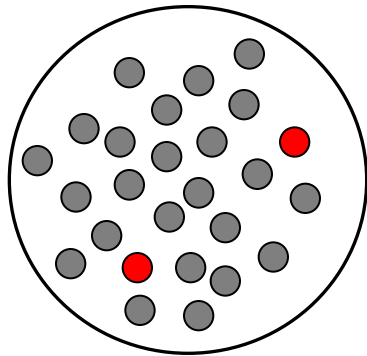
vPCR as Biomarker

The use of vPCR as biomarker tool needs to compare the amount of living cells over the total amount of cells

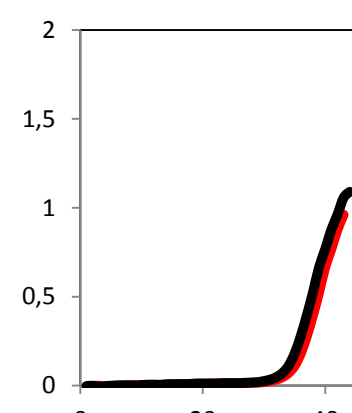
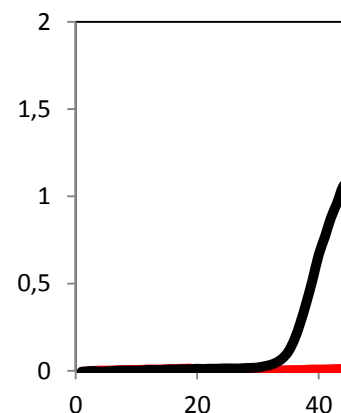
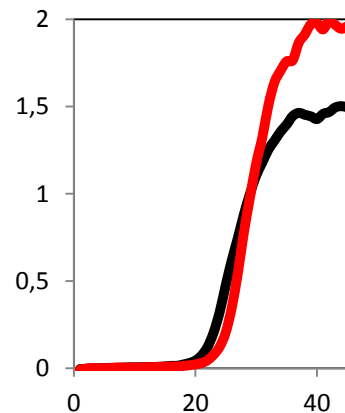
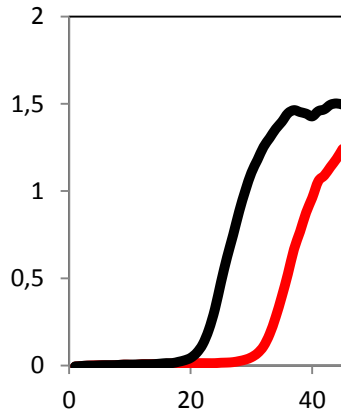
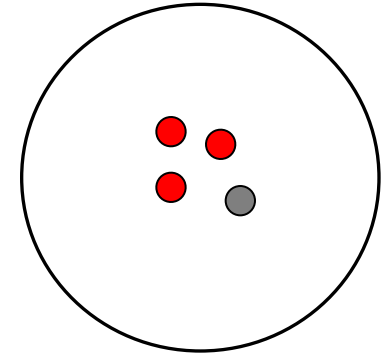
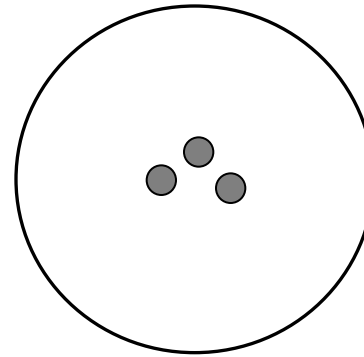
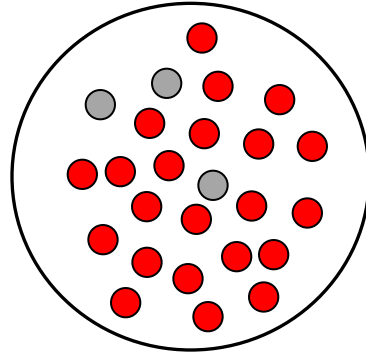
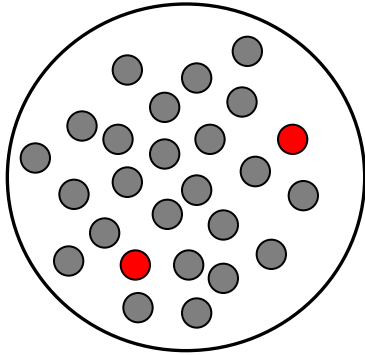
- 1) Successful treatment will show that the level of living cells is low.
- 2) An active disease will show that the the level of living cells is high.

vPCR as Biomarker

The use of vPCR as biomarker tool needs to measure the living cells levels (●) over the total amount of cells (● + ●)



vPCR as Biomarker



vPCR as Biomarker

The use of vPCR as a biomarker tool, needs to assess the level of living cells over total amount of cells. Thus, it's necessary to analyse a sample that hasn't been treated.

Current knowledge shows that Ct differences > 6 corresponds to successful treatment.



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