

foodproof®

GMO Screening 2 LyoKit Ready Reference Guide

Revision A, November 2023

Product No. KIT230086 (LP), KIT230087 (RP)

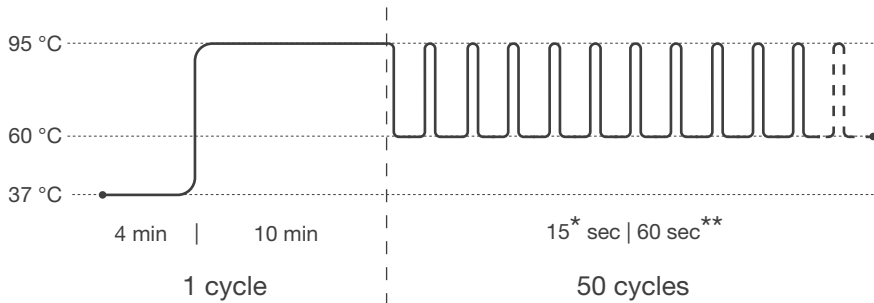
PCR kit for the qualitative detection of bar, P-35S-pat, CTP2-CP4-EPSPS and P-NOS-nptII/P-35S-nptII using real-time PCR instruments.

Before starting, it is strongly recommended to read the entire product manual available on our website.

PROGRAM SETUP

Program your real-time PCR instrument before setting up the PCR reactions. Select the following channels:

- ▶ FAM (bar), HEX (P-35S-pat), ROX (CTP2-CP4-EPSPS) and Cy5 (P-NOS-nptII and P-35S-nptII).



Pre-incubation: 1 cycle

Step 1: 37 °C for 4 min

Step 2: 95 °C for 10 min

Amplification: 50 cycles

Step 1 : 95 °C for 15* sec

Step 2** : 60 °C for 60 sec

* Use 5 sec for LC 480, LC 96, ABI 7500 Fast

** Fluorescence detection

For some real-time PCR instruments the probe quencher as well as the usage of a passive reference dye has to be specified. This kit contains probes with a non-fluorescent "dark" quencher and no passive reference dye. A Color Compensation is necessary for users of the LightCycler® 480 System: Color Compensation Set 3 (Product No. KIT230005).

DATA INTERPRETATION

Verify results of positive (Control Template) and negative controls (H₂O), before interpreting sample results. Always compare samples to positive and negative control. Review data from each channel and interpret results:

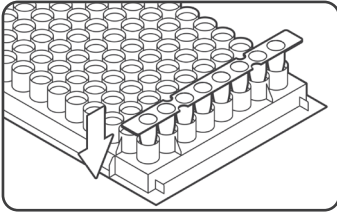
If a signal is present in channel ⇒ sample is positive for respective target.

Examples for data interpretation:

FAM	HEX	ROX	Cy5	Result Interpretation
+	-	-	-	Positive for bar
-	+	-	-	Positive for P-35S-pat
-	-	+	-	Positive for CTP2-CP4-EPSPS
-	-	-	+	Positive for P-NOS-nptII and P-35S-nptII
+	-	+	-	Positive for bar and CTP2-CP4-EPSPS
+	+	+	-	Positive for bar, P-35S-pat and CTP2-CP4-EPSPS
-	-	-	-	Negative for all targets

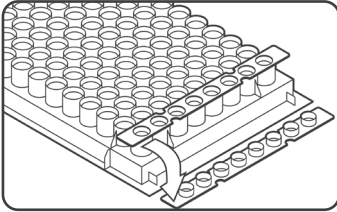
PREPARATION OF THE PCR MIX

Take appropriate precautions to prevent contamination, e.g., by using filter tips and wearing gloves.



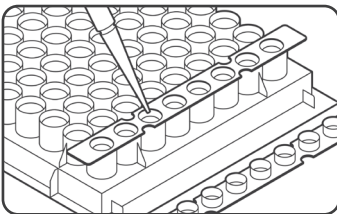
1. PLACE STRIPS IN RACK

Take needed number of PCR tube strips out of aluminum bag. Important: close bag tightly afterwards. Place strips in a suitable PCR tube rack. If needed, gently tap the tubes to move the lyophilized pellets to the bottom of all tubes.



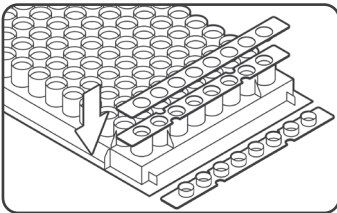
2. DECAP

Immediately before filling, carefully open strips and discard caps. Do not leave open longer than necessary.



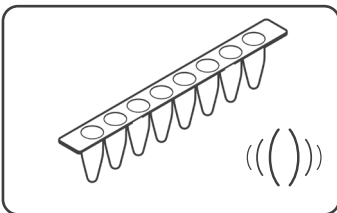
3. ADD SAMPLES AND CONTROLS

Pipette 25 μ L of samples, Negative Control (colorless cap) or Control Template (purple cap) into respective wells. If using less volume, add PCR-grade H₂O to reach 25 μ L.



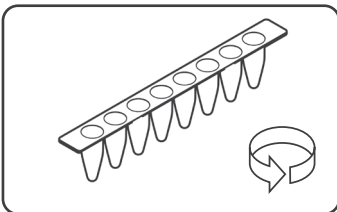
4. SEAL

Carefully seal the tubes with the provided 8-cap strips.



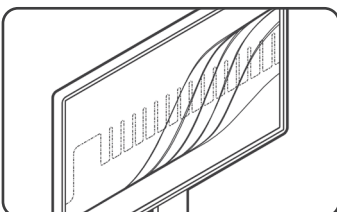
5. MIX

Resuspend pellet after sealing by mixing thoroughly. Alternatively, resuspend pellet by pipetting up and down multiple times in Step 3.



6. CENTRIFUGE

Briefly spin strips, e.g., 5 seconds at 500 - 1,000 x g, in a suitable centrifuge.



7. START REAL-TIME PCR RUN

Cycle samples as described above. Place tubes in a vertical, balanced order into the cycler, e.g., two strips can be placed in the first and last column.