

EchoSAFE RNA Gel Loading Buffer

for stabilization of RNA in formaldehyde/formamide-free agarose gels

Product no. (volume)	030-003-0005 (500 µL)	030-003-0025 (2 × 500 µL)
Kit contents	RNA Gel Loading Buffer	

Handling protocol for EchoSAFE RNA Gel Loading Buffer

Product information

EchoSAFE Gel Loading Buffer comes ready-to-use.

- 500 µL EchoSAFE RNA Gel Loading Buffer
- 2 × concentrated
- Contains glycerol for easy loading
- Contains bromophenol blue for visualization of electrophoresis migration

Materials and equipment needed

RNA samples (total RNA, mRNA) in Tris buffer, water or in standard elution buffer provided by your RNA purification kit supplier.

- Commercial RNA ladder
- Agarose gel chamber with combs
- Agarose and TAE or TBE buffers for gel preparation
- Vortex mixer
- Microtiter plate or PCR strips for mixing samples with the 2 × loading buffer
- Alternatively: 0.5 or 1.5 mL elution tubes
- Pipets and tips

Preparation before starting

- Prepare an agarose gel (optionally containing an RNA staining dye)

EchoSAFE RNA Gel Loading Buffer

for stabilization of RNA in formaldehyde/formamide-free agarose gels

Product no. (volume)	030-003-0005 (500 µL)	030-003-0025 (2 × 500 µL)
Kit contents	RNA Gel Loading Buffer	

Handling protocol for EchoSAFE RNA Gel Loading Buffer

Product information

EchoSAFE Gel Loading Buffer comes ready-to-use.

- 500 µL EchoSAFE RNA Gel Loading Buffer
- 2 × concentrated
- Contains glycerol for easy loading
- Contains bromophenol blue for visualization of electrophoresis migration

Materials and equipment needed

RNA samples (total RNA, mRNA) in Tris buffer, water or in standard elution buffer provided by your RNA purification kit supplier.

- Commercial RNA ladder
- Agarose gel chamber with combs
- Agarose and TAE or TBE buffers for gel preparation
- Vortex mixer
- Microtiter plate or PCR strips for mixing samples with the 2 × loading buffer
- Alternatively: 0.5 or 1.5 mL elution tubes
- Pipets and tips

Preparation before starting

- Prepare an agarose gel (optionally containing an RNA staining dye)

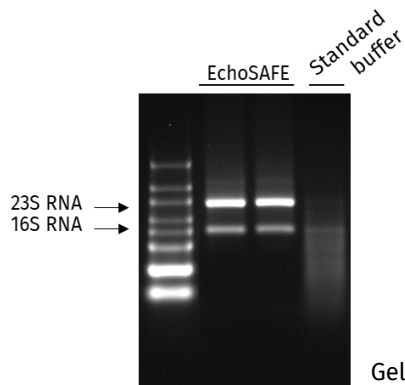
EchoSAFE RNA Gel Loading Buffer

PROTOCOL

1. Pipet RNA ladder and RNA samples for gel loading in the wells of a microtiter plate (alternatively, use PCR strips or reaction tubes).
2. Add the same volume of EchoSAFE RNA Gel Loading Buffer to the sample and mix.
3. Load the sample into the pockets of the agarose gel as usual and perform electrophoresis as usual.
4. Visualize RNA on a standard UV or blue light table (either after staining in gel or post-staining in RNA dye solution).

Recommendations for electrophoresis

- All standard agarose gels for analysis of DNA gels are suited (TAE or TBE buffered).
- Optimal agarose concentration ranges from 0.8 % to 2 %, depending on NA size.
- DNA and RNA samples can be run and analyzed on the same gel.
- RNA samples show the same pattern as in denaturing gels containing formaldehyde (see fig below).
- Note: Use RNA ladder as size marker or, when a DNA marker is used, consider the double-stranded nature of DNA markers in size-estimation of your RNA samples.



Gel analysis of total RNA fractions on a regular 0.8 % agarose gel.

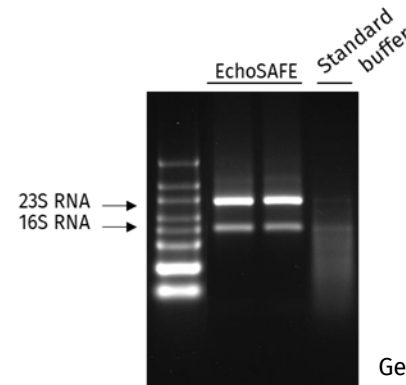
EchoSAFE RNA Gel Loading Buffer

PROTOCOL

1. Pipet RNA ladder and RNA samples for gel loading in the wells of a microtiter plate (alternatively, use PCR strips or reaction tubes).
2. Add the same volume of EchoSAFE RNA Gel Loading Buffer to the sample and mix.
3. Load the sample into the pockets of the agarose gel as usual and perform electrophoresis as usual.
4. Visualize RNA on a standard UV or blue light table (either after staining in gel or post-staining in RNA dye solution).

Recommendations for electrophoresis

- All standard agarose gels for analysis of DNA gels are suited (TAE or TBE buffered).
- Optimal agarose concentration ranges from 0.8 % to 2 %, depending on NA size.
- DNA and RNA samples can be run and analyzed on the same gel.
- RNA samples show the same pattern as in denaturing gels containing formaldehyde (see fig below).
- Note: Use RNA ladder as size marker or, when a DNA marker is used, consider the double-stranded nature of DNA markers in size-estimation of your RNA samples.



Gel analysis of total RNA fractions on a regular 0.8 % agarose gel.