RNA concentration measurement and non-denaturing agarose gel electrophoresis

Lisa-Maria Rosenthal[1], Giang Tong[1], Katharina Schmitt[1]

[1]Deutsches Herzzentrum Berlin, Berlin, Germany

dx.doi.org/10.17504/protocols.io.2v5ge86

May 15, 2019

Working

Lisa-Maria Rosenthal
Deutsches Herzzentrum Berlin

ABSTRACT

RNA concentration measurement and non-denaturing agarose gel electrophoresis

MATERIALS

NAME	CATALOG #	VENDOR
NanoDrop™ 2000c Spectrophotometer	ND-2000C	Thermo Fisher Scientific

1 • Allow RNA to thaw on ice

2 • Determine RNA concentration using a NanoDropTM 2000/2000c Spectrophotometers (Nucleic Acids – RNA mode, 2 µL sample size)

3 • Determine RNA purity from protein contamination by assuring 260/280 ratio is ~2.0

4 • Determine RNA integrity and purity from genomic DNA contamination by electrophoresis. Load 400 ng RNA onto a 1% agarose gel with ethidium bromide (EtBr) in TBE buffer and run at 70 V until the dye line is approximately 75-80% of the way down the gel.

5 • Visualize and document using a gel UV imaging/documentation system