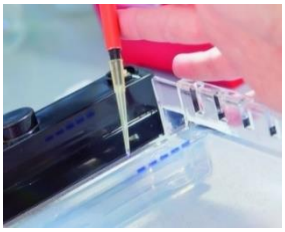
Technical Info

Well advised with Roth.



ROTI®Load DNA Gel Loading Buffers

Tipps for Application

ROTI®Load Gel Loading Buffers

The ROTH gel loading buffers are special buffers for nucleic acid electrophoresis. Each batch is tested for its functionality in electrophoresis. The gel loading buffers are ready-to-use solutions, which may be used directly.

ROTI®Load DNA buffer solutions contain Tris, sodium acetate and EDTA, with additional tracking dyes. For increasing the density when loading the gel, they are available in three different variations - with glycerol, ficoll and saccharose.

ROTI®Load RNA buffer solution contains formamide, MOPS, sodium acetate, EDTA and formaldehyde and bromophenol blue, and has been adjusted to pH 7.0. Due to the included ethidium bromide, the DNA is stained already during gel loading.

ROTI®Load DNAstain is a new generation of gel loading buffers providing fluorescent and non-toxic staining of DNA even during gel loading (see also next page).

Selecting a suitable ROTI®Load gel loading buffer for Nucleic Acids

Care should be taken to ensure that the dyes contained in the gel stop before smallest relevant DNA bands. This ensures that the buffer can be stopped in time. However, the selected dyes may overlay the bands shown. In this case, select a loading buffer that does not contain any unwanted dyes.

Bromophenol blue and xylene cyanol can be used as colour markers in all **standard gels** (1-3). If a relevant band is overlaid by one of these colour markers, choose a gel loading buffer containing Orange G (5,6).

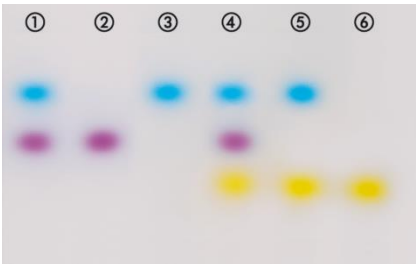
If **small fragments** are to be assayed, the gel loading buffer should contain Orange G in order to mark the run (4-6). If relevant bands are overlaid, however, a choice can be made between bromophenol blue or xylene cyanol depending on the size of the bands (2,3).

A loading buffer without xylene cyanol is usually used for assaying **large fragments** (2,6).

Glycerol is the standard reagent for increasing the density of samples.

Ficoll® 400 produces particularly well-defined bands.

Sucrose provides the greatest increase in density.



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The company is a limited partnership with headquarters in Karlsruhe, reg. court Mannheim HRA 100055. Roth Chemie GmbH, with headquarters in Karlsruhe, reg. court Mannheim HRB 100428, is the personally liable partner. Managing Director: André Houdelet. Sales tax identification number: DE 143621073.

Recommended Application

Product	Use	Concentration	Dye	Incl. DNA stain	Figure	Art. No.	Pack Qty.
Roti®-Load DNA (with glycerol)	Standard applications, routine gels	6x	BP, XC	-	①	**X904.1**	5 x 1,8 ml
Roti®-Load DNA 1x (with glycerol)	Standard applications, pelleted DNA	1x	BP, XC	-	①	**0100.1**	5 x 1,0 ml
Roti®-Load DNA (with ficoll)	Small amounts of DNA, especially sharp bands	6x	BP, XC	-	①	**X905.1**	5 x 1,8 ml
Roti®-Load DNA (with saccharose)	Big sample volumes, big fragments	6x	BP	-	②	**T847.1**	5 x 1,0 ml
Roti®-Load DNA short-run (with glycerol)	Short separation distances, fast gels	6x	BP	-	②	**0095.1**	5 x 1,8 ml
Roti®-Load DNA short-run 1x (with glycerol)	Short separation distances, fast gels, pelleted DNA	1x	BP	-	②	**0099.1**	5 x 1,0 ml
Roti®-Load DNA small (with glycerol)	Small or very big fragments	6x	XC	-	③	**HP03.1**	5 x 1,8 ml
Roti®-Load DNA orange 1 (with glycerol)	Very short separation distances, small fragments, high concentrated or High Resolution agarose	6x	OG	-	⑥	**HP04.1**	5 x 1,8 ml
Roti®-Load DNA-orange 2 (with glycerol)	Mixture of small and big fragments	6x	XC, OG	-	⑤	**HP05.1**	5 x 1,8 ml
Roti®-Load DNA-tricolor (with glycerol)	Broad size range, high flexibility	6x	BP, XC, OG	-	④	**HP06.1**	5 x 1,8 ml
Roti®-Load RNA	Separation of RNA fragments	1,3x	BP, EB	-	②	**T848.1**	2 x 0,5 ml

BP = Bromphenol blue XC = Xylene cyanole OG = Orange G EB = Ethidium bromide

Storage temp.: -20 °C

ROTI®Load RNA

* **Danger** H302-H315-H317-H319-H341-H350-H360FD-H373

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