

# DNA Loading Buffers

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A decorative graphic consisting of a network of interconnected nodes and lines. The nodes are represented by semi-transparent spheres in red, green, and blue, with some having concentric circles around them. The lines connecting the nodes are semi-transparent tubes in shades of red, green, and blue. The overall structure is abstract and resembles a molecular or network diagram.

**blirt**

## DNA Loading Buffers

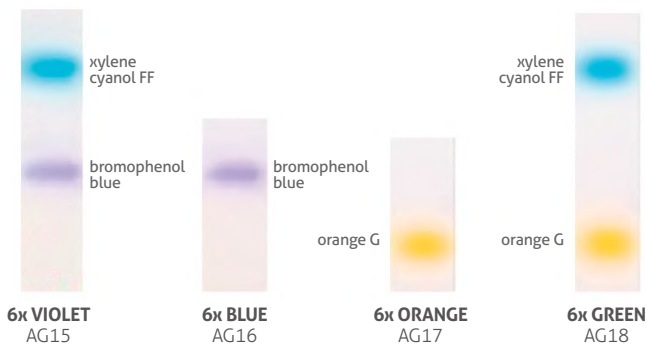
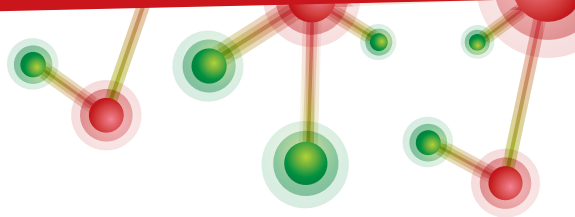
The 6x DNA Loading Buffer products facilitate the loading of DNA on agarose or polyacrylamide gels. The buffers are concentrated by a factor of six, so in order to obtain the best results mix 2  $\mu$ l of the loading buffer with 10  $\mu$ l of the DNA sample. The loading buffers contains either Ficoll® 400 (**6x BLUE**, **6x ORANGE**, **6x GREEN**) or glycerol (**6x VIOLET**), which facilitate rapid sinking to the bottom of the well in the agarose or polyacrylamide gel. The solutions protect DNA thanks to the presence of EDTA, which inactivates nucleases and other enzymes by binding the divalent metal ions crucial to their activity. Most of the Loading Buffers contain dyes which migrate in the electrophoretic field differently from the standard size PCR products, ensuring that they do not hinder the analysis by image obscuration.

### Formulation

- **6x VIOLET:** 10 mM Tris-HCl (pH 7.6), 60 mM EDTA, 0.03% bromophenol blue, 0.03% xylene cyanol FF, 60% (v/v) glycerol
- **6x BLUE:** 20 mM Tris-HCl (pH 7.6), 60 mM EDTA, 0.03% bromophenol blue, 15% Ficoll® 400
- **6x ORANGE:** 20 mM Tris-HCl (pH 7.6), 60 mM EDTA, 0.05% orange G, 15% Ficoll® 400
- **6x GREEN:** 20 mM Tris-HCl (pH 7.6), 60 mM EDTA, 0.05% orange G, 0.03% xylene cyanol FF, 15% Ficoll® 400

### Usage

- Mix 1 volume of 6x DNA loading Buffer with 5 volumes of DNA before application.
- Mix thoroughly prior to application.



Product	Dye	Migration in 1% agarose gels
<b>6x VIOLET</b>	bromophenol blue xylene cyanol FF	as 300 bp DNA fragment as 4000 bp DNA fragment
<b>6x BLUE</b>	bromophenol blue	as 300 bp DNA fragment
<b>6x ORANGE</b>	orange G	as 50 bp DNA fragment
<b>6x GREEN</b>	orange G xylene cyanol FF	as 50 bp DNA fragment as 4000 bp DNA fragment

## DNA Loading Buffers

Product	Volume	Cat. No.
6x VIOLET DNA Loading Buffer	1 ml	AG15
6x BLUE DNA Loading Buffer	1 ml	AG16
6x ORANGE DNA Loading Buffer	1 ml	AG17
6x GREEN DNA Loading Buffer	1 ml	AG18

### Quality control

The DNA loading buffers have been tested in various kinds of agarose and polyacrylamide gels. Absence of nucleases has been confirmed by relevant QC procedures.

### Storage & shipping

#### Storage conditions

Keep at +4°C or room temperature for short-term or at -20°C for long-term storage.

#### Shipping conditions

Shipping at room temperature

 For research use only