

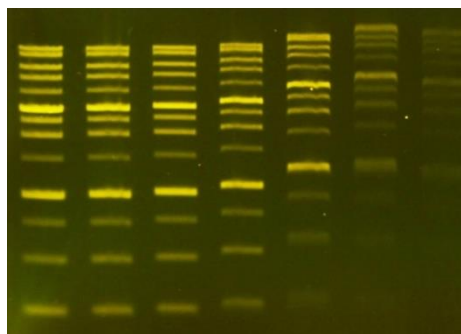
Technical Data Sheet

dsDNA-Stain nontoX (fluorescent loading dye, 6X)

for molecular biology

Order number: 1133

dsDNA-Stain nontoX is a non-mutagenic fluorescent stain for double-stranded DNA on agarose gels. It produces instant visualization of DNA bands upon Blue light or UV illumination. Under blue light excitation dsDNA-Stain nontoX shows a green-yellow fluorescence (see Fig. on the right*). Supplied in a 6X DNA loading buffer, dsDNA-Stain nontoX is used to prepare DNA markers and DNA samples for loading on agarose gels. dsDNA-



Stain nontoX contains three tracking dyes (Bromophenol Blue, Xylene Cyanol FF, and Orange G) for visually tracking the DNA migration during the electrophoresis process. It is a perfect and reliable solution for everyone who is looking for a safe and non-hazardous alternative to Ethidium Bromide. dsDNA-Stain nontoX does not affect the structure and integrity of DNA. It is not intercalating, but attaches to the dsDNA.

- x A **safe** alternative to Ethidium bromide
- x **Convenient** – ready-to-use; application procedure as for a 6X loading dye.
- x **Low environmental impact** – Compliance with the Clean Water Act standards; no water pollution concern; **no expenses required for the waste management.**
- x **Improved cloning efficiency** – due to the minimized DNA damage compared to Ethidium bromide
- x **Flexible** – Blue light and UV light can be used to detect the signal
- x **Highly sensitive** – The detection limit is approximatively 1 ng dsDNA/band

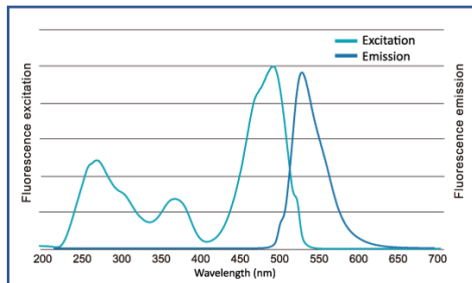
Storage

dsDNA-Stain nontoX is light sensitive and should be stored protected from light. Store at 4°C up to 12 months. For longer periods, store at -20°C.

*Binding of dsDNA-Stain nontoX affects the ionic charge of the DNA, thus distorting the migration pattern during electrophoresis. Excessive difference in the DNA/Stain ratio can result in visible differences in migration of identical DNA molecules. For precise visualization of DNA migration pattern, we strongly recommend post electrophoresis staining with 3411 or in-gel staining using 3422.



Spectral characteristics of dsDNA-Stain nontoX (bound to dsDNA)



Excitation maxima: 270 nm; 370 nm; 497 nm (blue light)

Emission maximum: 522 nm

Application

- x Vortex dsDNA-Stain nontoX for 10 seconds prior to use.
- x Dilute 1 part (e.g. 1 µl) of dsDNA-Stain nontoX with 5 parts (e.g. 5 µl) DNA sample and mix.

Note: dsDNA-Stain nontoX must be added to DNA markers in order to visualize the ladder bands simultaneously with the sample after electrophoresis.

- x Load sample and run according to standard procedures. Avoid light if possible.
- x After the electrophoresis, remove gel and place on UV or a visible-light transilluminator to visualize bands.

Note: It is important to clean the surface of the illuminator before and after each use with deionized water. Otherwise, fluorescent dyes will accumulate on the surface and create a high fluorescent background.

Related products

- 1110 Agarose Basic for biochemistry
- 1127 Agarose low EEO for molecular biology
- 2172 Agarose High Resolution for molecular biology
- 1531 DNA Marker 1 kb (lyophilized) for molecular biology
- 1530 DNA Marker 100 bp (lyophilized) for molecular biology
- 1254 Ethidium bromide - Solution 0.07 % dropping bottle for electrophoresis
- 1280 Glycerol anhydrous for molecular biology
- 1255 TAE buffer (50X) for electrophoresis
- 1303 TBE buffer (10X) for electrophoresis
- 3411 dsDNA gel stain (10.000X) for molecular biology
- 3422 Nucleic acid gel stain (10.000X) for molecular biology

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