Earth-RED DNA Gel Stain

CAT NO.: APL-8G102

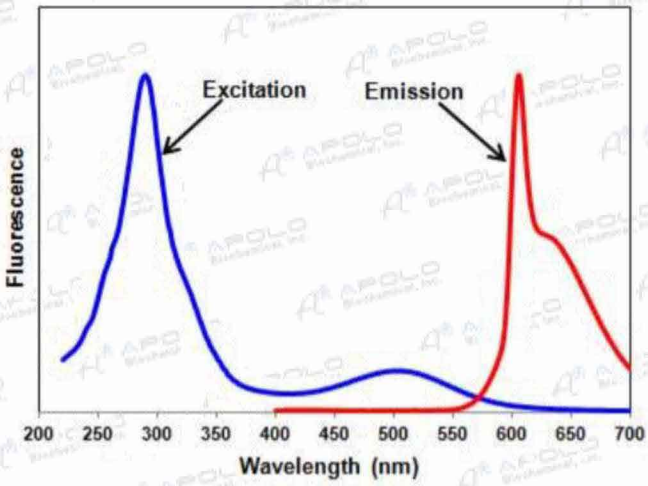
DESCRIPTION

Earth-RED DNA Gel Stain is a sensitive, and stable fluorescent nucleic acid stain designed to replace the highly toxic ethidium bromide (EtBr) for detection of dsDNA, ssDNA or RNA in agarose and polyacrylamide gels. This single stain gives more sensitive detection of dsDNA, ssDNA and RNA than EtBr. Gels can be post-stained or alternatively the stain can be added to agarose gels during gel casting. **Earth-RED** has similar excitation and emission spectra with EtBr, and is compatible with EtBr imaging system.

Earth-RED Nucleic Acid Gel Stain, 10,000X is a concentrated, **Earth-RED** solution that can be diluted 10,000 times for use in precast gel staining or 5,000 times for use in post gel staining according to the procedures described below. One vial of 10,000X solution can be used to prepare at least 100 precast minigels or post-stain at least 100 minigels.

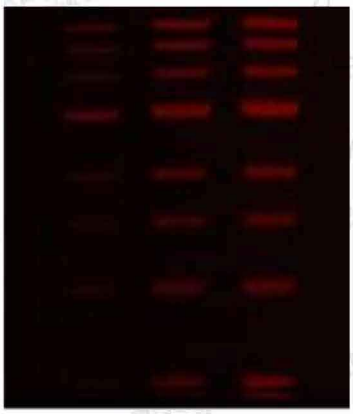
Gel staining with **Earth-RED** is compatible with downstream applications such as gel extraction and cloning. **Earth-RED** Is efficiently removed from DNA by phenol/chloroform extraction and ethanol precipitation.

SPECTRAL CHARACTERISTICS



Excitation (purple) and emission spectra (red) of **Earth-RED** bound to dsDNA in TBE buffer

Earth-RED in post gel Staining



CONTENT

	APL-8G102
Earth-RED DNA Gel Stain	500 uL

STORAGE

This product should be stored at 2-25 °C and avoid repeated freeze-thaw cycles. Protect from light.

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PROTOCOL

I. Post-staining Protocol:

i. Run gels as usual according to your standard protocol.

ii. Dilute the Earth-RED 10,000X stock reagent 5,000 fold to make a 2X staining solution in TE, TBE, or TAE buffer.

iii. Carefully place the gel in a suitable polypropylene container. Gently add a sufficient amount of the 2X staining solution to submerge the gel.

iv. Agitate the gel gently at room temperature for 30 min.

v. Wash the gel with DI water to remove excess dye. Image the stained gel with a standard 300 nm transilluminator, or a laser-based gel scanner using an EtBr filter.

II. Pre-cast Protocol:

i. Prepare molten agarose gel solution using your standard protocol

ii. Dilute the Earth-RED 10,000X stock reagent into the molten agarose gel solution at 1:10,000 and mix thoroughly.

iii. Cast the gel and allow it to solidify

iv. Load samples and run the gels using your standard protocol.

v. Image the stained gel with a standard 300 nm transilluminator, or a laser-based gel scanner using an EtBr filter

NOTE: The pre-cast protocol is not recommended for polyacrylamide gels. Use the post staining protocol for acrylamide gels.

PRODUCT USE LIMITATION

Research use only.