

## Certificate of Analysis

### Blue/Orange 6X Loading Dye:

Part No.	Size	Cat. #
G190A	1ml	G1881

**Description:** Blue/Orange 6X Loading Dye contains 0.03% bromophenol blue, 0.03% xylene cyanol FF, 0.4% orange G, 15% Ficoll® 400, 10mM Tris-HCl (pH 7.5) and 50mM EDTA (pH 8.0). This dye is used for loading DNA samples into gel electrophoresis wells and tracking migration during electrophoresis.

**Migration Characteristics:** In a 0.5–1.4% agarose gel in 0.5X TBE, xylene cyanol FF migrates at approximately 4kb, bromophenol blue migrates at approximately 300bp and orange G migrates at approximately 50bp.

**Recommended Dilution:** Use 1 part Blue/Orange 6X Loading Dye for every 5 parts DNA solution.

**Storage Temperature:** For long-term storage, store at –20°C. For daily/weekly use, store at 4°C. See the expiration date on the Product Information Label.

## Quality Control Assays

**Band-Masking Effect:** Blue/Orange 6X Loading Dye is mixed with Lambda/HindIII (Cat.# G1711) and Lambda/EcoRI (Cat.# G1721) Markers, and the marker fragments are separated by agarose gel electrophoresis. The separated xylene cyanol (dark blue), bromophenol blue (light blue) and orange G (orange) dyes must not mask any of the marker DNA fragments.

**Nuclease Assay:** Blue/Orange 6X Loading Dye is added to samples of plasmid DNA and lambda DNA, which are then incubated overnight at 37°C. Following incubation, the DNA samples, along with control samples, are subjected to agarose gel electrophoresis. The DNA that has been incubated with the Blue/Orange Loading Dye must not show any evidence of smearing when compared with control DNA samples.

**Sample Retention:** Five microliters of Blue/Orange 6X Loading Dye are added to 25µl of 0.04µg/µl pGEM®-3Zi(+) Vector in 5% ethanol. The DNA is then subjected to agarose gel electrophoresis followed by ethidium bromide staining. All of the DNA fragments present in the DNA sample must be visible on the gel.

## Blue/Orange Loading Dye, 6X

REF G1881

LOT 0000302058

-30°C +10°C

2023-04-02

Dispensed Lot#: 0000264966

3ml

For Research Use

Country of Origin: USA

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PEEL  
HERE



ADG1881 00003020580



# Promega

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Signed by:

R. Wheeler, Quality Assurance