## Product Contents

### 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®-3Zf(+) 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.


Promega

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