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ProductInformation

ORANGE G SODIUM SALT
Molecular Biology Reagent

Product No. **O3756**
Store at room temperature

Product Summary

Suitable for use as a tracking dye for nucleic acid gel electrophoresis
DNase, RNase: None detected
Mol. Wt. 452.4

Suitability
One volume dye solution (30% (w/v) sucrose and 0.35% (w/v) orange G) was added to five volumes sample containing pBR322/Hae III DNA. Upon electrophoresis (4% wide-range agarose gel) the orange G was found to run faster than bromophenol blue and the smallest detectable DNA fragment (approx. 51 bp). The dye front was plainly visible during the course of the electrophoresis.

Endonuclease (Nickase)
One µg of pBR322 DNA was incubated with orange G at a final concentration of 0.18% (w/v) in a 50 µl reaction mixture containing 30 mM Trizma®-HCl, pH 7.8, 50 mM NaCl and 10 mM $MgCl_2$ for 16 hours at 37 °C. No conversion of the covalently closed circular DNA to the nicked or linear form was observed by agarose gel electrophoresis. Detection limit: Conversion of 1% of the DNA substrate is detectable.

Endonuclease-Exonuclease
One µg of λ Hind III fragments was incubated for 16 hours at 37 °C with orange G at a final concentration of 0.18% (w/v) in a 50 µl reaction mixture containing 30 mM Trizma®-HCl, pH 7.8, 50 mM NaCl and 10 mM $MgCl_2$. No degradation of the DNA fragments was detected by agarose gel electrophoresis. Detection limit: Degradation of 10% of the DNA substrate is detectable.

RNase
Two µg of transfer RNA were incubated with orange G at a final concentration of 0.18% (w/v) in a 50 µl reaction mixture containing 30 mM Trizma®-HCl, pH 7.8, 50 mM NaCl and 10 mM $MgCl_2$ for 16 hours at 37 °C. No degradation of the tRNA was detected by polyacrylamide gel electrophoresis. Detection limit: Degradation of 10% of the tRNA substrate is detectable.

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