DEOXYRIBONUCLEIC ACID, OLIGONUCLEOTIDE, GEL ELECTrophoresis Marker \( dN_{5-19} \) odd

Product Number M 5653

Storage Temperature: Below 0°C

**Product Summary**
Band pattern is consistent with oligonucleotides 5, 7, 9, 11, 13, 15, 17 and 19 bases long.

**Procedure**
Kinase Reaction Mix
- 30 mM Tris-HCl, pH 8.0
- 10 mM MgCl\(_2\)
- 1 mM dithiothreitol
- 0.5 units/µl Polynucleotide Kinase
- 1 µCi/µl \( \gamma^{32}P\)-ATP (specific activity: 3000 Ci/mmol)

**Suitability Assay**
0.02 A260 units of \( dN_{5-19} \) markers were dissolved in 20 µl of water and heated to 95°C for 10 minutes. After chilling on ice the \( dN_{5-19} \) markers were diluted 1:10. 2 µl of the diluted \( dN_{5-19} \) markers were added to 18 µl of Kinase Reaction Mix and incubated for 30 min. at 37°C. The labeled markers were separated on a 20% (19:1) denaturing polyacrylamide gel. The gel was run until the bromophenol blue tracking dye migrated 75% of the length of the gel. An autoradiogram of the gel indicated a distinct banding pattern consisting of a set of 8 oligonucleotides, 5-19 bases in length, with two base increments between each oligonucleotide. All members of the series are present in roughly equimolar concentrations, except for the 5-mer and 15-mer which are present in molar excess over the other fragments as points of reference.