Technical Data Certificate of Analysis

Caution: For Laboratory Use. A research chemical for research purposes only.

Cyanine 3-dCTP NEL576

QUANTITY: 25 nmol **FORM:** 25 μL solution

CONCENTRATION: 1.0 mM

SOLVENT: 10 mM Tris-HCl, pH 7.6, 1.0 mM EDTA

FORMULA: $C_{42}H_{53}N_6O_{20}P_3S_3$ **FW** = 1151

EXTINCTION COEFFICIENT: 150,000 M⁻¹cm⁻¹ (550 nm, Phosphate buffer, pH = 7)

700

WAVELENGTH: EXCITATION 550nm (Maxima) EMISSION 568nm

500

INTRODUCTION

Fluorescent nucleotide analogs ¹ are biologically active with a variety of DNA and/or RNA polymerases. Labeling methods such as: nick translation, random priming, polymerase chain reaction, 3'-end labeling, or transcription of RNA using SP6, T3, or T7 RNA polymerases may be used. Some analogs demonstrate variations in relative performance depending upon nucleotide and fluorophore selected due to enzyme preferences. Labeled probes may be used in applications including (but not limited to) chromosome mapping². These analogs are intended to be detected directly by their fluorescence properties. For additional information: call 1-800 762-4000 or visit our WEB site at

http://www.perkinelmer.com/nucleotide_analogs. QUALITY CONTROL

The nucleotide analog is purified by HPLC chromatography. Analytical HPLC is used as a quality control check to ensure chemical purity >95%. UV/VIS absorption spectra are obtained in aqueous phosphate buffer to determine concentration. Relative fluorescence quantum yields are not necessarily the same for the four different base nucleotide analogs.

STABILITY AND STORAGE CONDITIONS

Nucleotides labeled with fluorophores should be protected from extended exposure to light. These nucleotide analogs are stable kept in a refrigerator or colder for at least 1 year. Minimizing freeze-thaw cycles and exposure to light are the most critical factors to consider for long term usage.

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²This product may not be used for DNA sequencing unless (a) used with a DNA sequencer instrument purchased from PerkinElmer Life Sciences, Inc. or its sublicensees, or (b) a separate license for such use is obtained from Applied Biosystems, Inc., Foster City, CA.

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