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## Product Data Sheet

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Product Name: Cyanine 5-dUTP

Cat. No.: GB20024

### Chemical Properties

Cas. No.

Formula  $C_{45}H_{55}N_5O_{21}P_3S_2$  (free acid) M.Wt 1158.9 (free acid)

Solubility Storage Store at -20°C or below

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Background

Cyanine 5-dUTP is a Cyanine 5-conjugated analog of deoxyuridine triphosphate (dUTP), used for direct enzymatic labeling of nucleic acid probes. Cyanine 5-dUTP can be incorporated into DNA probes by standard nick translation, random priming and polymerase chain reactions. DNA probes generated by these methods are suitable for identification of specific sequences by in situ hybridization procedures and direct fluorescence detection. A Cyanine 5-labeled probe can also be used in combination with probes labeled with other fluorochromes to obtain spectrally distinct signals. DNA probes labeled with Cyanine 5-dUTP and Cyanine 3-dUTP have been successfully used in fluorescence in situ hybridization experiments, making multisequence analysis a simple, powerful and practical tool in many areas of research and clinical diagnostics.

Reference: 1. Yu H, Chao J, Patek D, et al. Cyanine dye dUTP analogs for enzymatic labeling of DNA probes. *Nucleic Acids Research*, 1994, 22(15): 3226-3232.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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