

Data Sheet (06.08.2010)

Atto590-dUTP

Fluorescent labeled aminoallyl-dUTP

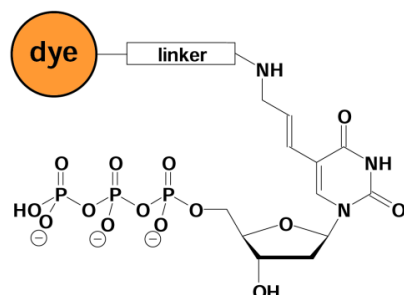
Cat.-No.	Amount.	Conc.
mi-N1306S-590	10 µl	1 mM
mi-N1306L-590	50 µl	1 mM

Only for *in vitro* use!
For research only!

mi-Atto590-dUTP

1 mM 5-(3-aminoallyl)-2'-deoxy-uridine-5'-triphosphate labeled with Atto590, triethylammonium salt, pH 7.5, purity >95 %

Structure



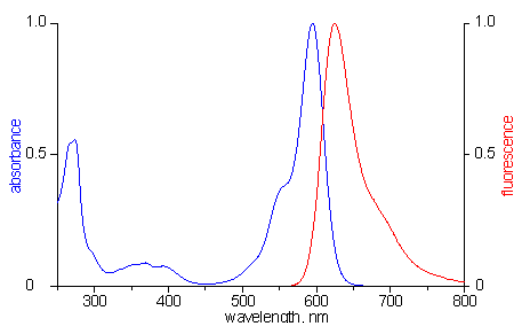
Atto590-dUTP, the dye is attached via an optimized linker to aminoallyl-dUTP

Spectroscopic data

Excitation maximum: Ex = 594 nm

Emission maximum: Em = 624 nm

Extinction coefficient: 120,000 cm⁻¹ M⁻¹



Atto590 excitation and emission spectra

Description

Atto590-dUTP is recommended for direct enzymatic labeling of DNA. The dye-dUTP is specially optimized for incorporation into DNA by PCR using *Taq* Polymerase. In PCR labeling, repeated cycles of denaturation, annealing and extension allow the amplification of a specific DNA fragment. When dTTP is partially substituted by dye-dUTP a fluorescent labeled doublestranded DNA is generated.

The resultant DNA is suited for application in FISH, microarray gene expression profiling and other nucleic acid hybridization assays.

Recommended concentrations in PCR

Component	Final conc.
dATP; dCTP; dGTP;	100 µM each
dTTP	75 µM
Atto590-dUTP	25 µM ¹⁾
forward Primer	500 nM
reverse Primer	500 nM
Template DNA	5-500 pg/ µl

1) The optimal final concentration of the labeled nucleotide may vary depending on the application.

Carry out experimental procedures in low light conditions.

Store at -20 °C in the dark

Avoid frequent thawing and freezing

Under these storage conditions, a guarantee of 12 months after delivery is given.