

Data Sheet (06.08.2010)

Atto425-dUTP

Fluorescent labeled aminoallyl-dUTP

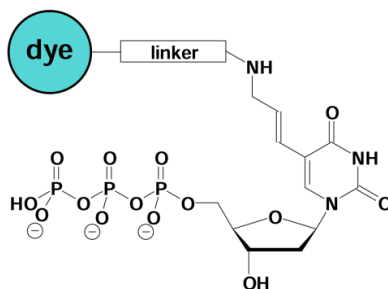
Cat.-No.	Amount.	Conc.
mi-N1301S-425	10 µl	1 mM
mi-N1301L-425	50 µl	1 mM

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

mi-Atto425-dUTP

1 mM 5-(3-aminoallyl)-2'-deoxy-uridine-5'-triphosphate labeled with Atto425, triethylammonium salt, pH 7.5, purity >95 %

Structure



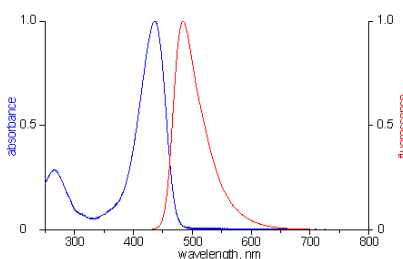
Atto425-dUTP, the dye is attached via an optimized linker to aminoallyl-dUTP

Spectroscopic data

Excitation maximum: Ex = 436 nm

Emission maximum: Em = 484 nm

Extinction coefficient: 45,000 cm⁻¹ M⁻¹



Atto425 excitation and emission spectra

Description

Atto425-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
Atto425-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.