

## FAM-11-dCTP, 6-isomer

<http://www.lumiprobe.com/p/fam-11-dctp-6>

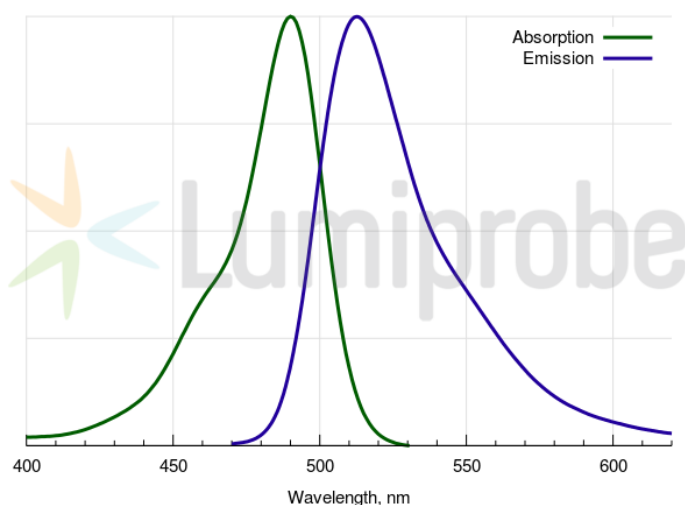
6-fluorescein (FAM) derivative of deoxycytidine triphosphate (dCTP).

FAM 6-isomer is a common fluorophore used for labeling biomolecules; FAM has a high quantum yield and bright green emission.

FAM-11-dCTP can be used for enzymatic DNA labeling via Nick-translation.

The linker length (11 carbon atoms) is optimal for the efficient incorporation of fluorescently-labeled dCTP into the growing DNA chain.

Labeled DNA can be used for FISH experiments, microarray gene profiling, Southern blot, and Northern blot.



**Absorption and emission spectra of FAM**

### General properties

Appearance:	yellow to orange solid
Molecular weight:	1012.5
Molecular formula:	$C_{28}H_{40}N_6Li_3O_{10}P_3$
IUPAC name:	((2R,3S,5R)-5-(4-amino-5-(3-(6-(3-carboxy-4-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzamido)hexanamido)prop-1-yn-1-yl)-2-oxo-3,4-dihydropyrimidin-1(2H)-yl)-3-hydroxytetrahydrofuran-2-yl)methyl hydrogen triphosphate
Solubility:	good in water
Quality control:	HPLC-MS (95%), testing in enzymatic reaction
Storage conditions:	Storage: 12 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light and excessive freeze-thaw cycles.
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### Spectral properties

Excitation/absorption maximum, nm:	490
$\epsilon$ , L·mol <sup>-1</sup> ·cm <sup>-1</sup> :	80000
Emission maximum, nm:	513
Fluorescence quantum yield:	0.93
CF <sub>260</sub> :	0.20
CF <sub>280</sub> :	0.17