

## FAM-11-dUTP, 6-isomer

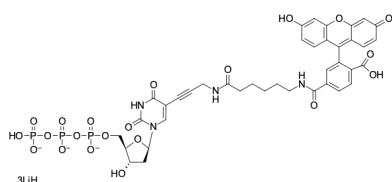
<http://www.lumiprobe.com/p/fam-11-dutp-6>

6-FAM-11-2'-deoxyuridine-5'-triphosphate, trilithium salt, is a common agent for non-radioactive DNA labeling.

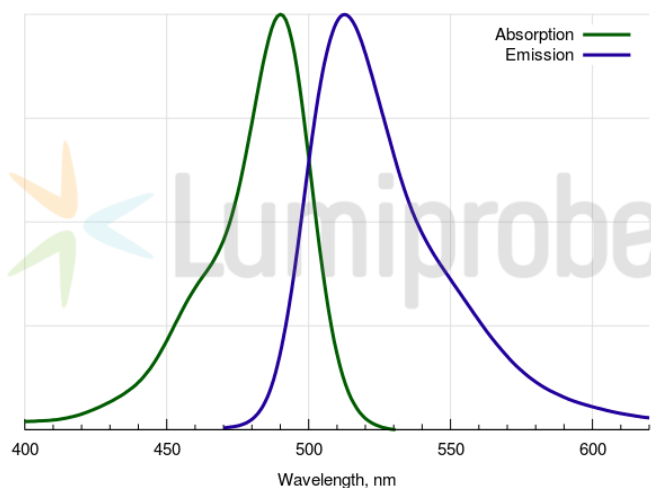
FAM (fluorescein) is a popular green-fluorescent dye with an emission maximum at 513 nm. This derivative is a pure FAM 6-isomer.

In contrast to triphosphates with a dye directly linked to aminoallyl-dUTP, this triphosphate contains a linker of 11 atoms between the fluorophore and the nitrogenous base. This linker length prevents FAM-label from potential static quenching and increases the efficiency of nucleotide incorporation during DNA synthesis.

6-FAM-11-dUTP can be used to produce a labeled product during Nick-translation. Synthesized fluorescence-labeled DNA probes can be used to detect specific sequences by Southern blot, Northern blot, *in situ* hybridization, or by microarray analysis.



**Structure of FAM-11-dUTP, 6-isomer**



**Absorption and emission spectra of FAM**

### General properties

Appearance:	yellow to orange solid
Molecular weight:	1013.49
Molecular formula:	C <sub>39</sub> H <sub>39</sub> N <sub>4</sub> Li <sub>3</sub> O <sub>21</sub> P <sub>3</sub>
IUPAC name:	((2R,3S,5R)-5-(5-(3-(6-(3-carboxy-4-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzamido)hexanamido)prop-1-yn-1-yl)-2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-3-hydroxytetrahydrofuran-2-yl)methyl hydrogen triphosphate
Solubility:	soluble 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.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

### Spectral properties

Excitation/absorption maximum, nm:	492
ε, L·mol <sup>-1</sup> ·cm <sup>-1</sup> :	74000
Emission maximum, nm:	517
Fluorescence quantum yield:	0.93
CF <sub>260</sub> :	0.22
CF <sub>280</sub> :	0.17