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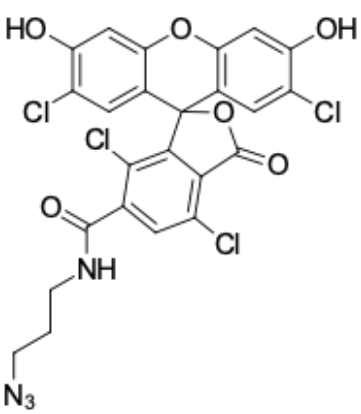
TET azide, 6-isomer

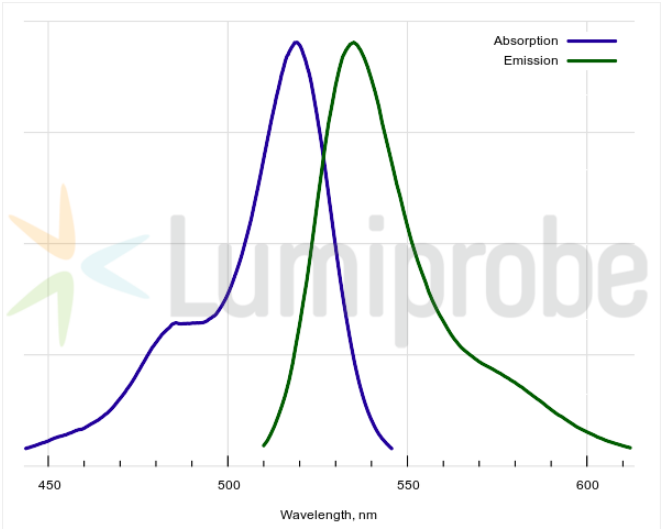
http://www.lumiprobe.com/p/tet-azide-6

TET (tetrachlorofluorescein) is a green-fluorescent fluorescein derivate with absorption maximum at 519 nm and emission maximum at 535 nm. TET is spectrally similar to R6G, JOE, and VIC, widely used for labeling PCR probes.

Oligonucleotides labeled with TET are often used in real-time PCR; the preparation of such oligonucleotides can be performed using click chemistry. This derivative is an azide, a pure 6-isomer, for conjugating TET to other molecules by copper-catalyzed and copper-free click reactions.



Structure of TET azide, 6-isomer



Absorption and emission spectra of TET

General properties

Appearance:	orange powder
Molecular weight:	596.21
CAS number:	1450752-90-5
Molecular formula:	$C_{24}H_{14}Cl_4N_4O_6$
Solubility:	in DMSO
Quality control:	NMR ^1H and HPLC-MS (95+%)
Storage conditions:	24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate. Avoid prolonged exposure to light.

Spectral properties

Excitation/absorption maximum, nm:	519
ε, $L \cdot mol^{-1} \cdot cm^{-1}$:	100000
Emission maximum, nm:	535
Fluorescence quantum yield:	0.47
CF_{260}:	0.17
CF_{280}:	0.09