**Lumiprobe Corporation**
115 Airport Dr Suite 160
Westminster, Maryland 21157
USA
Phone: +1 888 973 6353
Fax: +1 888 973 6354
Email: order@lumiprobe.com

## TET phosphoramidite, 6-isomer

http://www.lumiprobe.com/p/tet-amidite

TET phosphoramidite for synthesis of fluorescently labeled oligonucleotides, pure 6-isomer.

TET (tetrachlorofluorescein) is a green-fluorescent fluorescein derivate (absorption maximum at 519 nm, emission maximum at 535 nm).

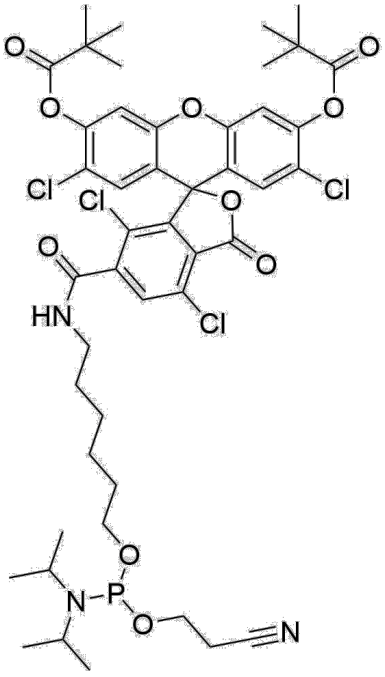
TET phosphoramidite is used for synthesis of fluorescently-labeled primers and hybridization probes for qPCR. TET can be used with DusQ1 fluorescence quencher (can be used with 500 Å DusQ1 CPG 500).

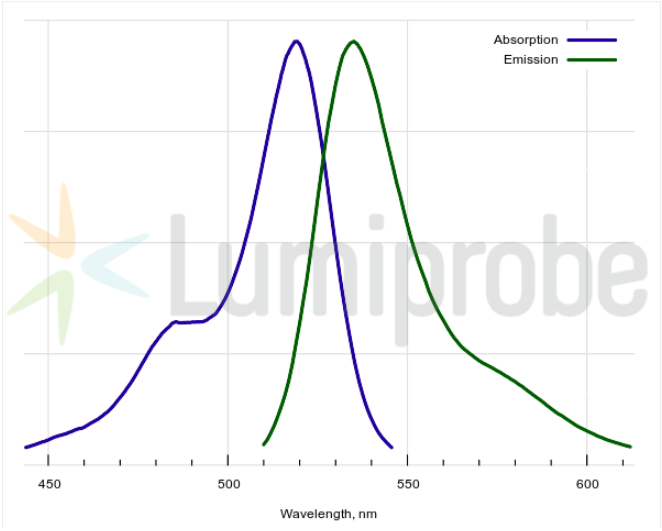
5'-labeled primers are used with non-labeled reverse primers for microsatellite amplification via PCR followed by fragment analysis. TET-labeled amplification products can be analyzed using various sequencers for capillary electrophoresis, including ABI PRISM® 310 Genetic Analyzer.

# Recommendations for using the reagent:

Condensation: 3 min.

Deprotection: standard conditions with 25% ammonium hydroxide; deprotection time depends on oligonucleotide composition and nucleobase protecting groups (deprotection for 17 hours at 55°C removes all protecting groups from standard nucleobases). AMA (solution of 30% ammonium hydroxide/40% aqueous methylamine 1:1 v/v) can be used with ~5% non-fluorescent side product forming. To avoid formation of the side product, start deprotection with ammonium hydroxide (30 min at room temperature), then add an equal volume of 40% aqueous methylamine and continue deprotection as required with AMA (10 min at 65°C).




**Absorption and emission spectra of TET**

**General properties**

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|---|---|
| Appearance: | white solid foam |
| Molecular weight: | 981.72 |
| CAS number: | 877049-90-6 |
| Molecular formula: | $C_{46}H_{54}N_3Cl_4O_{10}P$ |
| IUPAC name: | 2',4,7,7'-tetrachloro-6-((6-(((2-cyanoethoxy)(diisopropylamino)phosphaneyl)oxy)hexyl)carbamoyl)-3-oxo-3H-spiro[isobenzofuran-1,9'-xanthene]-3',6'-diyl bis(2,2-dimethylpropanoate) |
| Solubility: | Good solubility in acetonitrile and DCM |
| Quality control: | NMR $^{1}H$ and $^{31}P$, HPLC-MS (95%) |
| Storage conditions: | Storage: 12 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. Desiccate. |

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| 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**

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|---|---|
| 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 |

**Oligo synthesis details**

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|---|---|
| Diluent: | anhydrous acetonitrile (prepare a 0.1 M solution, storage 1 week). |