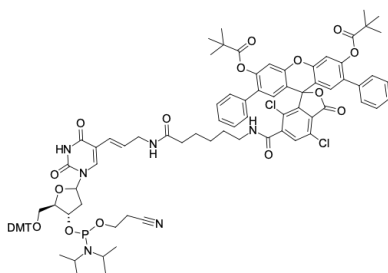


SIMA-dT phosphoramidite, 6-isomer

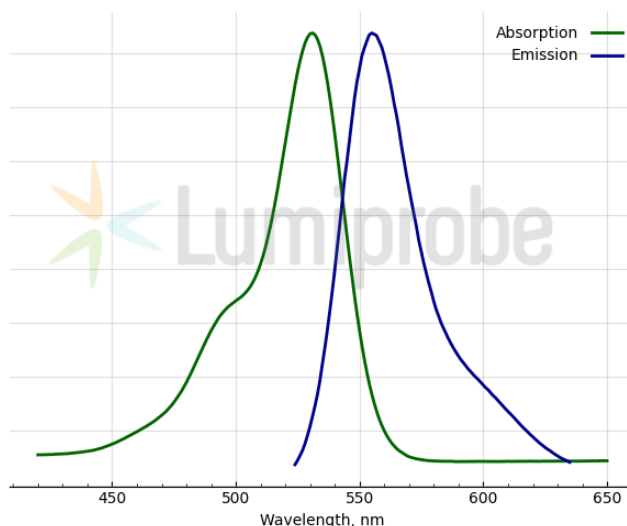
<http://www.lumiprobe.com/p/sima-dt-amidite-6>

SIMA-dT phosphoramidite is used to introduce SIMA in the sequence during oligonucleotide synthesis, usually as a substitute for the native dT linkage.

SIMA is known to be much more stable than HEX in basic media thus deprotection in harsh conditions using ammonium hydroxide (up to 6-8 hours at 55 °C) is possible as well as AMA at room temperature or at 65 °C.



Structure of SIMA-dT phosphoramidite, 6-isomer



Absorption and emission spectra of SIMA

General properties

Appearance:	white powder
Molecular weight:	1646.67
Molecular formula:	C ₉₁ H ₉₅ Cl ₂ N ₆ O ₁₇ P
Solubility:	good solubility in acetonitrile and DCM
Quality control:	NMR ¹ H and ³¹ P, HPLC-MS (95+%)
Storage conditions:	Storage: 12 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate. Avoid prolonged exposure to light.
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:	531
ε, L·mol ⁻¹ ·cm ⁻¹ :	92300
Emission maximum, nm:	555
Fluorescence quantum yield:	0.63
CF ₂₆₀ :	0.57
CF ₂₈₀ :	0.18

Oligo synthesis details

Diluent:	anhydrous acetonitrile
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Coupling conditions:

coupling time 6 min

Deprotection conditions:

standard method recommended, can be deprotected with AMA (1:1 mixture of concentrated aqueous ammonium hydroxide / 40% aqueous methylamine).