

Pyrenebutyric acid NHS ester

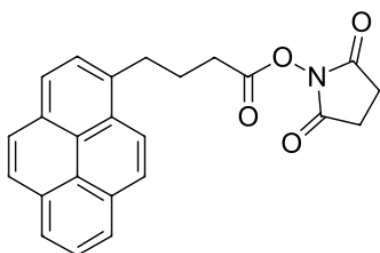
<http://www.lumiprobe.com/p/pyrene-nhs-ester>

Pyrene is a polyaromatic hydrocarbon which exhibits fluorescence in blue range of the spectrum. When two pyrene residues are closely spaced, excimer fluorescence is observed at longer wavelength. Therefore, pyrene is useful as a proximity label.

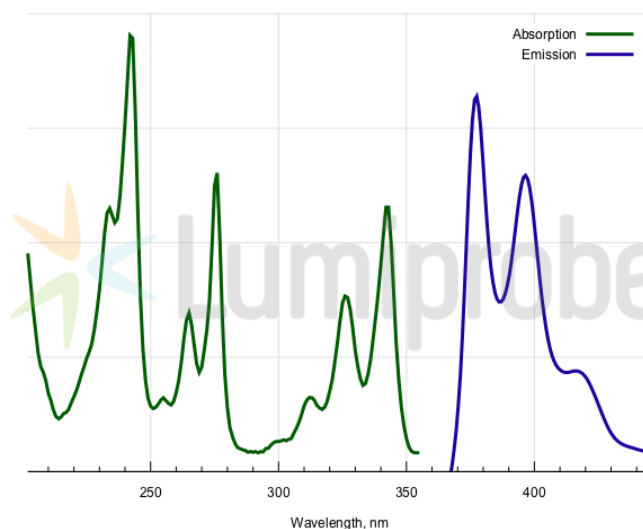
Pyrene exhibits affinity to graphite, and can be used as an anchor group for graphite. This reagent can be conjugated with biomolecules for their subsequent immobilization on graphite surfaces.

This NHS ester allows to label biomolecules with amino groups, such as proteins, peptides, amino-DNA and other molecules.

Pyrene is also a FRET donor for perylene.



Structure of Pyrenebutyric acid NHS ester



Absorption and emission spectra of pyrene fluorophore

General properties

Appearance:	off-white solid
Mass spec M+ increment:	270.1
Molecular weight:	385.41
CAS number:	114932-60-4
Molecular formula:	C ₂₄ H ₁₉ NO ₄
IUPAC name:	1-Pyrenebutanoic acid, 2,5-dioxo-1-pyrrolidinyl ester
Solubility:	good in DCM, chloroform, moderate in DMF, DMSO, low in water
Quality control:	NMR ¹ H, 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. Avoid prolonged exposure to light. Desiccate.

Spectral properties

Excitation/absorption maximum, nm:	343; 326; 313; 276; 265; 242; 234
Emission maximum, nm:	377; 397