Sulfo-Cyanine5 NHS ester

Water soluble Cyanine 5 succinimidyl ester (SE), an equivalent of Cy5® NHS ester, for the labeling of various amine-containing molecules in aqueous phase without use of any organic co-solvent. This product is therefore particularly useful for the labeling of proteins which denature in the presence of organic co-solvents, as well as for proteins with low solubility.

Sulfo-Cyanine 5 is an analog of Cy5®, one of the most popular fluorophores which is compatible with various equipment such as plate readers, microscopes, and imagers.

This dye is highly hydrophilic and water-soluble. A non-sulfonated analog is also available.

Can be used as a replacement for Cy5®, Alexa Fluor 647, DyLight 649 for all applications.

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**General properties**

- **Appearance:** dark blue powder
- **Molecular weight:** 777.95
- **CAS number:** 2230212-27-6 (potassium salt); 937739-58-7 (inner salt)
- **Molecular formula:** C_{36}H_{40}N_{3}KO_{10}S_{2}
- **Solubility:** very good in water, good in DMF and DMSO
- **Quality control:** NMR ¹H, 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.
- **TN VED Code:** 3204190000

**Spectral properties**

- **Excitation maximum, nm:** 646
- **ε, L⋅mol⁻¹⋅cm⁻¹:** 271000
- **Emission maximum, nm:** 662
- **Fluorescence quantum yield:** 0.28
- **CF_{260}:** 0.04
- **CF_{280}:** 0.04

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