

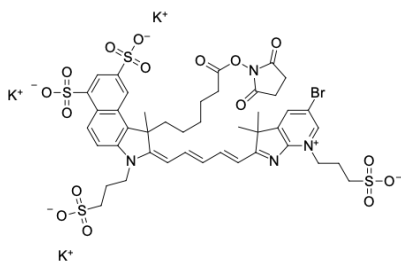
AF 700 NHS ester

<http://www.lumiprobe.com/p/af-700-nhs-ester>

AF 700 NHS ester is an activated ester of the AF 700 fluorophore designed for covalent labeling of proteins, antibodies, peptides, and other biomolecules containing primary amines. The NHS ester reacts rapidly and efficiently with ϵ -amino groups of lysine residues or N-terminal amines under mildly basic conditions, forming a stable amide bond.

The dye emits in the near-infrared (NIR) spectral region and is characterized by long-wavelength excitation and emission, resulting in low background autofluorescence in biological samples and a high signal-to-noise ratio. Owing to its high molar extinction coefficient, good quantum yield, and photostability, AF 700 is well suited for sensitive fluorescence-based detection methods.

AF 700 NHS ester is widely used for the preparation of fluorescent antibody and protein conjugates for applications such as flow cytometry, fluorescence microscopy, and immunofluorescence assays, as well as for *in vitro* and *in vivo* imaging requiring signal detection in the far-red and near-infrared spectral regions.



Structure of AF 700 NHS ester

General properties

| | |
|---------------------|--|
| Appearance: | dark violet powder |
| Molecular weight: | 1200.32 |
| Molecular formula: | $C_{43}H_{46}BrK_3N_4O_{16}S_4$ |
| Solubility: | DMSO, water |
| Quality control: | NMR 1H and HPLC-MS (95+%) |
| Storage conditions: | 12 months after receipt at $-20^\circ C$ 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: | 707 |
| ϵ , $L \cdot mol^{-1} \cdot cm^{-1}$: | 162000 |
| Emission maximum, nm: | 728 |
| Fluorescence quantum yield: | 0.17 |
| CF_{260} : | 0.13 |
| CF_{280} : | 0.11 |