# AF488 NHS ester

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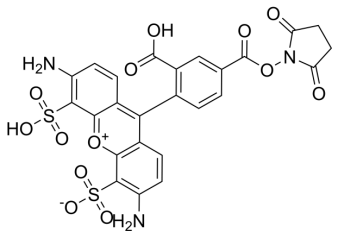
| **Cat. No.:** | HY-D1730 |
| **CAS No.:** | 1374019-99-4 |
| **Molecular Formula:** | $C_{25}H_{17}N_3O_{13}S_2$ |
| **Molecular Weight:** | 631.54 |
| **Target:** | Fluorescent Dye |
| **Pathway:** | Others |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

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| **Description** | AF488 NHS ester is an amine specific fluorescence probe (Em=525 nm). AF488 NHS ester reacts with sulfhydryl groups and amines in aqueous and biological samples then change their chemical structure and fluorescence properties after derivatization[1]. |
| **In Vitro** | IgG fluorescent labeling and anti-IgG solid phase peptide libraries screening of AF488 NHS ester[2]<br>(1) Dissolve the lyophilized immunoglobulin in a solution of 50 mM sodium phosphate, 20 mM sodium chloride and PH 8.3 at a concentration of 5 g/L.<br>(2) Dissolve 1 mg of AF488 NHS ester in 100 μL extra dry DMF, add 1 mL of solution in (1), and incubate at room temperature for 1 h.<br>(3) Collect samples with Amicon Ultra 0.5-mL Centrifugal Filter Unit equipped with 3-kDa MWCO filters.<br>(4) The deprotected libraries of hexameric or tetrameric are washed in 50 mM sodium phosphate, 150 mM sodium chloride, PH 7.4 (PBS) solution with 5× settled resin volume washing three times to balance.<br>(5) Dilute IgG-AF488 with 50 mM sodium phosphate, 150 mM sodium chloride, 0.2% Tween (PH 7.4) solution until the final concentration is 1.3 mg/mL.<br>(6) Incubate (4) and (5) at 2-8°C overnight.<br>(7) Wash resin beads with 50 mM sodium phosphate, 150 mM sodium chloride, 0.1% Tween 20, PH 7.4 (PBS-T).<br>(8) The resin is deposited in a 96-well plate of 40 μL PBS-T with one bead per well, and then the fluorescence microscope is used to image at 10× magnification. Under 480 nm excitation, Alexa Fluor 488 fluorescence measurement and fluorescence screening are carried out with 510 nm emission intensity as the threshold.<br>AF488 NHS ester storage solution[1]<br>Prepare 20 mM AF488 NHS ester with DMF.<br>Note: AF488 NHS ester storage solution is recommended to be stored in dark at -20°C after sub-packaging.<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## REFERENCES

[1]. Kendall CG, et al. Amine Analysis Using AlexaFluor 488 Succinimidyl Ester and Capillary Electrophoresis with Laser-Induced Fluorescence. J Anal Methods Chem. 2015;2015:368362.

[2]. Lavoie RA, et al. Targeted Capture of Chinese Hamster Ovary Host Cell Proteins: Peptide Ligand Discovery. Int J Mol Sci. 2019 Apr 8;20(7):1729.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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