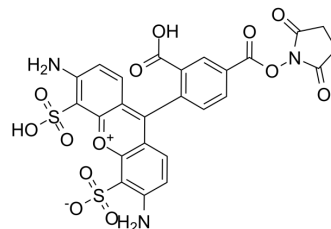


## AF488 NHS ester

<b>Cat. No.:</b>	HY-D1730
<b>CAS No.:</b>	1374019-99-4
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>17</sub> N <sub>3</sub> O <sub>13</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	631.54
<b>Target:</b>	Fluorescent Dye
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	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 <sup>[1]</sup> .
<b>In Vitro</b>	<p>IgG fluorescent labeling and anti-IgG solid phase peptide libraries screening of AF488 NHS ester<sup>[2]</sup></p> <ol style="list-style-type: none"> <li>(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.</li> <li>(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.</li> <li>(3) Collect samples with Amicon Ultra 0.5-mL Centrifugal Filter Unit equipped with 3-kDa MWCO filters.</li> <li>(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.</li> <li>(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.</li> <li>(6) Incubate (4) and (5) at 2-8°C overnight.</li> <li>(7) Wash resin beads with 50 mM sodium phosphate, 150 mM sodium chloride, 0.1% Tween 20, PH 7.4 (PBS-T).</li> <li>(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.</li> </ol> <p>AF488 NHS ester storage solution<sup>[1]</sup>          Prepare 20 mM AF488 NHS ester with DMF.          Note: AF488 NHS ester storage solution is recommended to be stored in dark at -20°C after sub-packaging.          MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### 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.

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

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