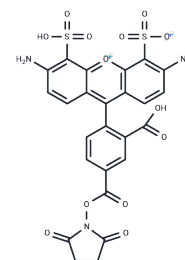


## AF488 NHS ester

## Chemical Properties

CAS No. :	1374019-99-4
Formula:	C <sub>25</sub> H <sub>17</sub> N <sub>3</sub> O <sub>13</sub> S <sub>2</sub>
Molecular Weight:	631.54
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	AF488 NHS ester is an amine-specific fluorescence probe (Em=525 nm) that reacts with sulfhydryl groups and amines in aqueous and biological samples, altering their chemical structure and fluorescence properties after derivatization [1].
Targets(IC50)	Others
In vitro	<p>AF488 NHS ester is used for fluorescent labeling of IgG and in screening anti-IgG solid-phase peptide libraries. To begin, lyophilized IgG is dissolved at a concentration of 5 g/L in a solution of 50 mM sodium phosphate and 20 mM sodium chloride at pH 8.3. Then, 1 mg of AF488 NHS ester is dissolved in 100 µL of extra dry DMF and added to 1 mL of the IgG solution, followed by room temperature incubation with rotation for 1 hour. The sample is collected using an Amicon Ultra 0.5-mL centrifugal filter unit equipped with a 3-kDa MWCO filter. Deprotected hexamer or tetramer libraries are washed three times in 50 mM sodium phosphate and 150 mM sodium chloride at pH 7.4 (PBS) using five times the volume of resin to equilibrate. IgG-AF488 is diluted in a solution of 50 mM sodium phosphate, 150 mM sodium chloride, and 0.2% Tween (pH 7.4) to a final concentration of 1.3 mg/mL. The solutions prepared in steps (4) and (5) are incubated overnight at 2-8°C. The resin beads are washed with 50 mM sodium phosphate, 150 mM sodium chloride, and 0.1% Tween 20 at pH 7.4 (PBS-T). Each resin bead is deposited in a 96-well plate with 40 µL of PBS-T per well, and imaging is conducted using a fluorescence microscope at 10x magnification. Alexa Fluor 488 fluorescence measurement and screening are performed with excitation at 480 nm and emission intensity threshold at 510 nm. The AF488 NHS ester storage solution is prepared at a concentration of 20 mM in DMF, with storage recommended in aliquots at -20°C, protected from light.</p> <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.5834 mL	7.9172 mL	15.8343 mL
5 mM	0.3167 mL	1.5834 mL	3.1669 mL
10 mM	0.1583 mL	0.7917 mL	1.5834 mL
50 mM	0.0317 mL	0.1583 mL	0.3167 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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