

# XFD488 Hydroxylamine

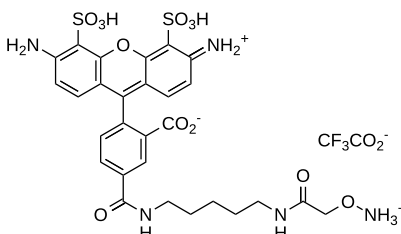
Catalog Number: 1900

Unit Size: 1 mg

## Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

## Chemical Properties

Appearance	Solid orange
Molecular Weight	805.71
Soluble In	DMSO
Chemical Structure	

## Spectral Properties

Excitation Wavelength	499 nm
Emission Wavelength	520 nm

## Applications

XFD488 Hydroxylamine is the same molecule to Alexa Fluor® 488 Hydroxylamine with higher purity (Alexa Fluor® is the trademark of ThermoFisher). The fluorescent dye hydrazides and hydroxylamines are reactive molecules that can be used to add a fluorescent label to biomolecules containing aldehydes or ketones. Aldehydes and ketones can be introduced into polysaccharides and glycoproteins by periodate-mediated oxidation of vicinal diols. Galactose oxidase can also be used to oxidize terminal galactose residues of glycoproteins to aldehydes. Hydroxylamine derivatives (aminoxy compounds) react with aldehydes and ketones to yield oximes. Oximes are superior to hydrazones with respect to hydrolytic stability. Both hydrazones and oximes can be reduced with sodium borohydride (NaBH<sub>4</sub>) to further increase the stability of the linkage. In addition, fluorescent dye hydrazides and hydroxylamines are useful as low molecular weight, membrane-impermeant, aldehyde-fixable cell tracers.