

---

## Product Information Sheet

### Ordering Information

Product Number: 999  
Product Name: iFluor™ 488 alkyne  
Unit Size: 1 mg  
Storage Conditions: Freeze (<-15 °C), Desiccated, Avoid Light  
Expiration Date: 12 months upon receiving

### Chemical and Spectral Properties

Appearance: Solid  
Molecular Weight: 773.92  
Soluble In: DMSO  
Excitation Wavelength: 491  
Emission Wavelength: 518

### Application Notes

Although FITC is still the most popular fluorescent labeling dye for preparing green fluorescent bioconjugates, there are certain limitations with FITC, such as severe photobleaching for microscope imaging and pH-sensitive fluorescence. Protein conjugates prepared with iFluor™ 488 dyes (Ex/Em=491 nm/520 nm) are far superior compared to conjugates of fluorescein derivatives such as FITC. iFluor™ 488 conjugates are significantly brighter than fluorescein conjugates and are much more photostable. Additionally, the fluorescence of iFluor™ 488 is not affected by pH (4-10). This pH insensitivity is a major improvement over fluorescein, which emits its maximum fluorescence only at pH above 9. iFluor™ 488 alkyne dye is reasonably stable and shows good reactivity and selectivity with azide group for click chemistry applications (CuAAC). The iFluor™ 488 dyes are an excellent replacement to the Alexa Fluor dyes that have the identical spectral properties ( Alexa Fluor® is the trademark of Invitrogen).