

FluoProbes AF - DBCO

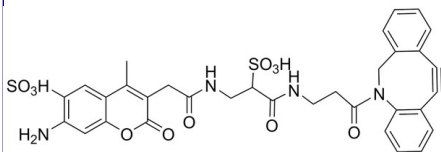
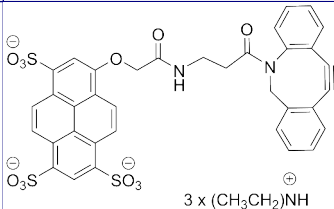
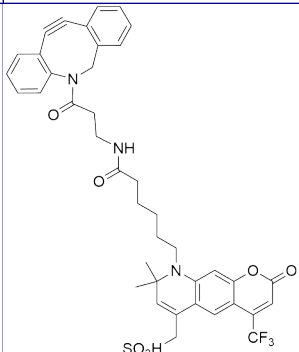
CycloAlkyne activated dyes for fluorescent labeling of biomolecules by click chemistry

Products Description

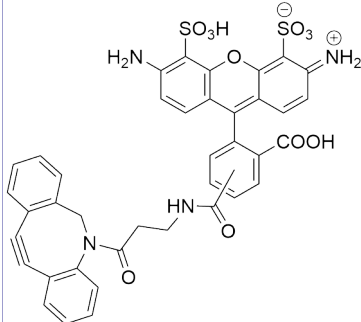
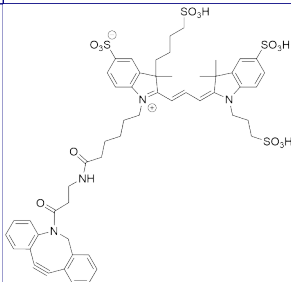
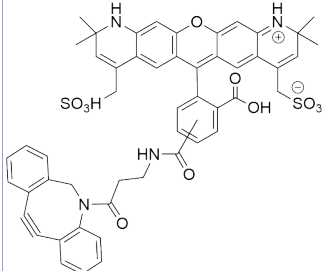
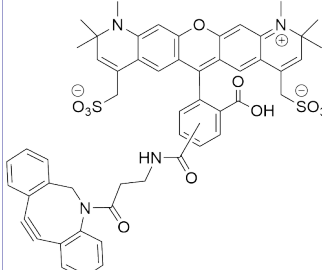
A variety of FluoProbes® **AF** dyes has been used to label proteins, nucleic acids and other biomolecules for fluorescence techniques (imaging, biochemical analysis). They replace advantageously the conventional fluorochromes such as Fluorescein (FITC) and rhodamines (TRITC, RRX).

FluoProbes® **AF - DBCO** (also known as DIBO) react with Azide via a copper-catalyzed click reaction (CuAAC) and with cyclo-octyne (DBCO) by strain-promoted cyclo-addition without need of catalyzer or elevated temperature. This click chemistry is increasingly being used in a variety of biological applications, because it is biorthogonal.

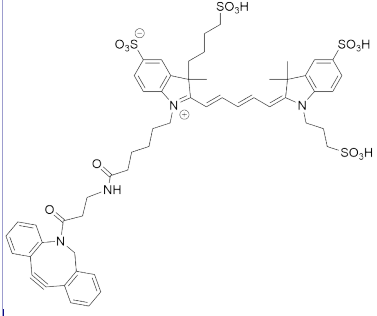
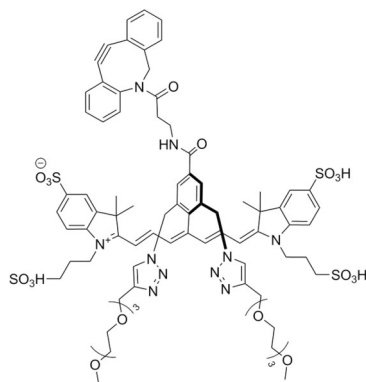
The table below gives main physical and fluorescence characteristics of the activated dyes.

Product name cat.number/qty	MW g·mol ⁻¹ (+added MW)	λ abs./em. nm	mol. abs. M ⁻¹ cm ⁻¹	Comment, structure
AF350 – DBCO FP-BVLB60, 1mg	722.14	346 / 445	19 000	
AF405 – DBCO FP-B432J1, 1mg (M) Appearance: yellow solid Soluble in Water, DMSO, DMF	774.79	402 / 424	35 000	
AF430 – DBCO FP-B432K1, 1mg (M) Appearance: yellow solid Soluble in Water, DMSO, DMF	761.81	430/537	35 000	

FT-B432L1

Product name cat.number/qty	MW g·mol ⁻¹ (+added MW)	λ abs./em. nm	mol. abs. M ⁻¹ cm ⁻¹	Comment, structure
AF488 – DBCO FP-B432L1, 1mg (M)K1 Apparence: Orange to light red solid Soluble in Water, DMSO, DMF	792.12 (protonated)	494 / 517	76 000 QY: 0.92	
AF532 – DBCO FP-B432M1, 1mg (M) Apparence: Orange to light red solid Soluble in Water, DMSO, DMF	878.96	530 / 554	78 000	
AF546 – DBCO FP-B432N1, 1mg (M) Apparence: red solid Soluble in Water, DMSO, DMF	1006.50	546 / 570	110 000	
AF555 – DBCO FP-B432P1, 1mg (M) Apparence: solid Soluble in Water, DMSO, DMF	1105.32 (protonated)	555 / 572	155 000	
AF568 – DBCO FP-B432Q1, 1mg (M) Apparence: red solid Soluble in Water, DMSO, DMF	953.04	578 / 602	88 000 QY: 0.69	
AF594 – DBCO FP-B432R1, 1mg (M) Apparence: red solid Soluble in Water, DMSO, DMF	980.10 (protonated)	590 / 617	88 000	

FT-B432L1

Product name cat.number/qty	MW g·mol ⁻¹ (+added MW)	λ abs./em. nm	mol. abs. M ⁻¹ cm ⁻¹	Comment, structure
AF647 – DBCO FP-B432S1, 1mg (M) Appearance: blue solid Soluble in Water, DMSO, DMF	1131.36	648 / 671	270 000	
FP 800C – DBCO FP-BVLB40, 1mg Soluble in Water, DMSO, DMF	1677.94	775 / 799	204 000	

Storage: –20°C, protected from light
 Avoid prolonged exposure to light. Desiccate.
 Stable for 12 months after receipt at –20°C in the dark.

AF350: It is a blue-fluorescent dye optimal for use with the 350 nm UV laser.
AF405: It is a blue-fluorescent dye optimal for use with the 405 nm laser line.
AF488: It is a bright green-fluorescent dye optimal for use with the 488 nm Argon laser.
AF532: It is an yellow-fluorescent dye optimal for use with the frequency-doubled Nd:YAG laser line.
AF546: It is a bright orange-fluorescent dye optimal for use with the 454-570 nm excitation.
AF555 is a bright orange-fluorescent dye ideally suited for the 532 nm or 555 nm laser lines with TRITC filter
AF568: It is a bright green-fluorescent dye optimal for use with the 568 nm laser line.
AF594: It is a bright red-fluorescent dye optimal for use with the frequency-doubled He-Ne laser line.
AF647: It is a bright red-fluorescent dye optimal for use with the 633 nm or 647 nm laser lines.
 More information about each dye in the technical sheet FT-[AXCJ91](#).

Alexa Fluor® Dye is a registered trademark of Invitrogen, part of Thermo Fisher Scientific.
 CF® Dye is a registered trademark of Biotium, Inc

Protocols

See the technical sheet [FT-DQP580](#) for a click chemistry protocol using DBCO.
 See also the technical sheet [FT-FY2780](#) for standard Click Chemistry information and protocols, including Click Chemistry Labeling of Oligonucleotides and DNA.

Related products

* **AF dyes** functionalized by **NHS** ([R08112](#)), **Azide** ([AXCJ91](#)), **Alkyne** ([AXCECA](#)), **DBCO** ([AXCECA](#)), **Maleimide** ([820731](#)), **Hydrazide** ([846631](#)), **Amine** (), **Carboxyl** (B34PY-)

AF488 – Acid	FP-AY1DEB	AF488 – Streptavidin	FP-U76032
AF488 – Hydroxylamine	FP-AM8331	AF488 – Tyramide	FP-AY1DC1
AF488 – NHS	FP-R08112	AF488 – Phalloidin	B2U2D0
AF488 – Maleimide	820731	AF488 – Annexin V	FP-M19671
AF488 – Hydrazide	FP-846631	AF488 – Goat anti Rabbit igG(H+L)	479961
AF488 – Azide	FP-AXCJ91	AF488 – Goat anti Mouse	494221
AF488 – Alkyne	FP-AXCECA	AF488 – Protein labeling Kit	BFXAC0

FT-B432L1

* Alternative fluorescent dyes:

- **FluoProbes** (Superior brightness and photostability, i.e. FP488) –NHS ([BA6800](#)), –Azide ([YE4970](#)), –Maleimide ([BA6810](#))
- **CY_{anine}** dyes –Azide ([HO7250](#))
- Classic dyes such as **FAM, R110, JOE, TAMRA**, and **ROX**.

* Other labeling/conjugation chemistries: • [Click Chemistry reagents](#)

Ordering information

Catalog size quantities and prices may be found at www.interchim.com/

Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : FluoProbes® / Interchim; Hotline : +33(0)4 70 03 73 06

Disclaimer : Materials from FluoProbes® are sold **for research use only**, and are not intended for food, drug, household, or cosmetic use. FluoProbes® is not liable for any damage resulting from handling or contact with this product.