

## 52225 Alkyne MegaStokes dye 673 for copper catalyzed click labeling

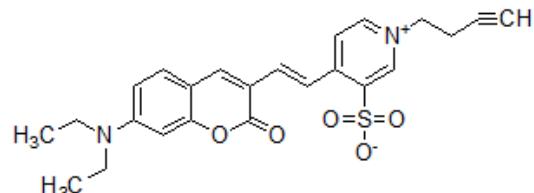
### MegaStokes dyes for "click" biological labelling

The MegaStokes dyes for „click“ biological labelling, licensed by LuminoChem are virtually covering the whole visible spectrum reaching the infra-red regime. Besides dyes that are being capable of participating in classical copper catalyzed 1,3-dipolar cycloaddition reaction with the counteracting function, we also provide dyes containing cyclooctyne moiety an alkyne derivative that enables copper free clicking to azides.

These dyes are noteworthy for their large Stokes-shift (120 or 125 nm). Dyes for this kind are exceptionally useful in fluorescence resonance electron transfer (FRET) applications as they do not interfere with the spectral bands of the second fluorophore a common problem in FRET technology. Azido sugars have been used for click-labeling of surface glycoproteins, recently. We have adapted this system to demonstrate<sup>4</sup> the ability of our dyes to undergo bioorthogonal labeling reaction, efficiently. Prior to labeling, Chinese hamster ovary (CHO) cells were incubated with MegaStockes dyes to test the possible cytostatic effects of these dyes. Experimental results have shown that neither dye is toxic up to 50  $\mu$ M concentration.<sup>1)</sup>

#### **Properties :**

- Clickable functionalities
- Large Stokes-shift
- Soluble in water, ethanol, DMF, DMSO
- Excellent photostability
- Zero net charge
- Exceptional in FRET applications



**Ex / em** = 540 / 680 nm (in ethanol)

**Molar absorbance** = 50 000 M<sup>-1</sup>cm<sup>-1</sup>

#### **Storage :**

Store at -20°C

#### **Literature :**

<sup>1)</sup> P. Kele, X. Li, M. Link, K. Nagy, A. Herner, K. Lörincz, Sz. Béni, O. S. Wolfbeis. *Org. Biomol. Chem.* **2009**, 7, 3486

#### **Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

The vibrant M and Sigma-Aldrich are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates.

Detailed information on trademarks is available via publicly accessible resources.

© 2018 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved.

The life science business of Merck KGaA, Darmstadt, Germany  
operates as MilliporeSigma in the US and Canada.

