Supplementary Material

Reagents for labeling with pH-independent fluorescein-based tags

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Scheme S1. Chemical structures of compounds applied for introducing fluorescein moieties into organic molecules.
Figure S10. $^1$H and $^{13}$C NMR spectra of 2 in CDCl$_3$. 
Figure S11. $^1$H and $^{13}$C NMR spectra of 4 in CDCl$_3$. 
Figure S1. Absorption spectra of Olig-Flu in different buffer solutions. Concentration 1 mg/mL.

Figure S2. Absorption spectra of 2 (A, B) and 4 (C, D) solutions in water (pH 7) – A, C, and in 1,4-dioxane – B, D. Concentration 5 µM.
Figure S3. Absorption spectra of 2 (A) and 4 (B) in different buffer solutions. Concentration 2.5 µM for A and 10 µM for B.
**Figure S4.** Absorption spectra of ZS-424 (A), ZS-493 (B), ZS-495 (C) in different buffer solutions. Concentrations 0.47 mg/mL for A, 0.36 mg/mL for B and 1 mg/mL for C.
Figure S5. Excitation spectra of fluorescein (A), Olig-Flu (B), 2 (C) and 4 (D) in different buffer solutions at emissions 523 nm. Concentrations 0.5 µM for A and B, 2.5 µM for C, 5 µM for D.
Figure S6. Excitation spectra of ZS-424 (A) and ZS-493 (B) in different buffer solutions at emissions 523 nm. Concentrations 0.47 mg/mL for A and 0.36 mg/mL for B.

Figure S7. Excitation spectra of ZS-495 in different buffer solutions at emission 545 nm. Concentrations 1 mg/mL.
Figure S8. Emission spectra of ZS-424 (A) and ZS-493 (B) in different buffer solutions at excitation 490 nm. Concentrations 0.47 mg/mL for A and 0.36 mg/mL for B.

Figure S9. Emission spectra of ZS-495 in different buffer solutions at excitation 490 nm. Concentrations 1 mg/mL.