Supplementary Information for:

Synthesis and Evaluation of a Series of Conjugatable 1,2,4,5-Tetrazines for Bioorthogonal Conjugation

Mark R. Karver, Ralph Weissleder and Scott A. Hilderbrand*

[*] To whom correspondence should be addressed

List of Contents:

- (S2) Scheme S1
- (S3) Figure S1
- (S4) Figure S2
- (S5) Figure S3

Scheme S1. General cycloaddition reaction of (1S,2S,4S)-bicyclo[2.2.1]hept-5-en-2-ylacetic acid (Norbornene, NB) with a generic 1,2,4,5-tetrazine showing one representative reaction product isomer.

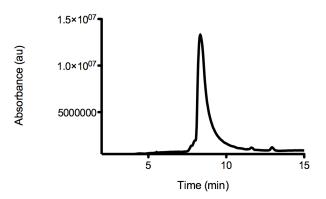


Figure S1. HPLC trace of purified AF750-6 using a 0-100% buffer B gradient over 15 min.

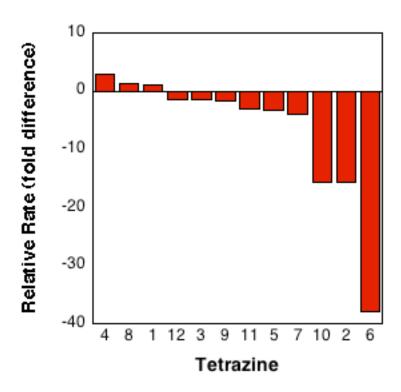


Figure S2. Relative second order [4+2] cycloaddition rate constants to 1 (4-(1,2,4,5-tetrazin-3-yl)phenyl)methanamine ($k_2 = 1$) of tetrazines 1-12 with NB in PBS at 37°C.

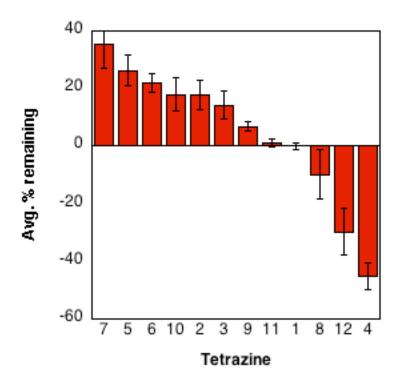


Figure S3. Relative tetrazine stability in relation to **1** in PBS after 14 h at 37°C.