

# Synthesis of 4-(2*H*-[1,2,4]-Triazol-5-ylsulfanyl)-1,2-dihydropyrazol-3-one *via* Ring-switching Hydrazinolysis of 5-Ethoxymethylidenethiazolo [3,2-*b*][1,2,4]triazol-6-one

Serhii Holota <sup>1,2</sup>, Yaroslav Shylych <sup>1</sup>, Halyna Derkach <sup>3</sup>, Olexandr Karpenko <sup>4</sup>, Andrzej Gzella <sup>5</sup> and Roman Lesyk <sup>1,\*</sup>

<sup>1</sup> Department of Pharmaceutical, Organic and Bioorganic Chemistry, Danylo Halytsky Lviv National Medical University, Pekarska 69, 79010 Lviv, Ukraine; golota\_serg@yahoo.com (S.H.), yaroslavaspire@gmail.com (Y.S.)

<sup>2</sup> Department of Organic Chemistry and Pharmacy, Lesya Ukrainka Eastern European National University, Volya Avenue 13, 43025 Lutsk, Ukraine

<sup>3</sup> Department of Chemistry, Ivano-Frankivsk National Medical University, Halytska 2, 76018 Ivano-Frankivsk, Ukraine; derkachhalya@gmail.com

<sup>4</sup> Enamine Ltd., 23 Alexandra Matrosova, 01103 Kyiv, Ukraine; karalexander@gmail.com

<sup>5</sup> Department of Organic Chemistry, Poznan University of Medical Sciences, Grunwaldzka 6, 60-780 Poznan, Poland; akgzella@ump.edu.pl

\* Correspondence: dr\_r\_lesyk@org.lviv.net or roman.lesyk@gmail.com; Tel.: +38-032-275-7734

Figure S1. LC-MS of compound 3

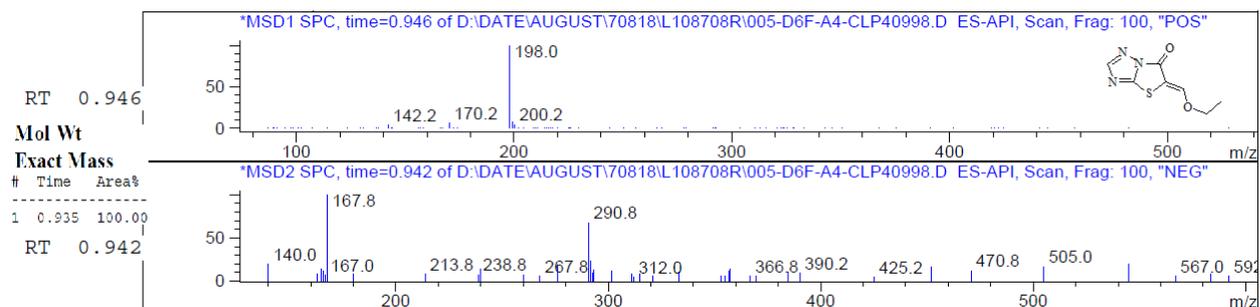


Figure S2. <sup>1</sup>H NMR of compound 3

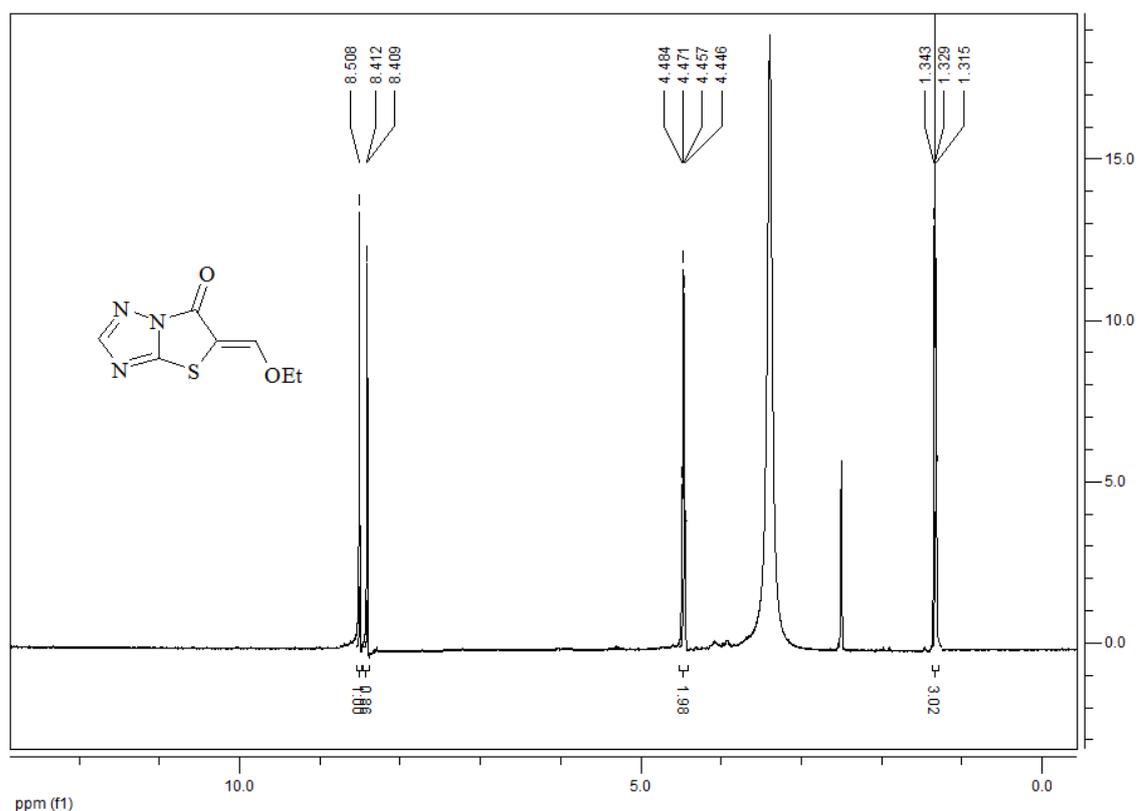


Figure S3.  $^{13}\text{C}$  NMR compound 3

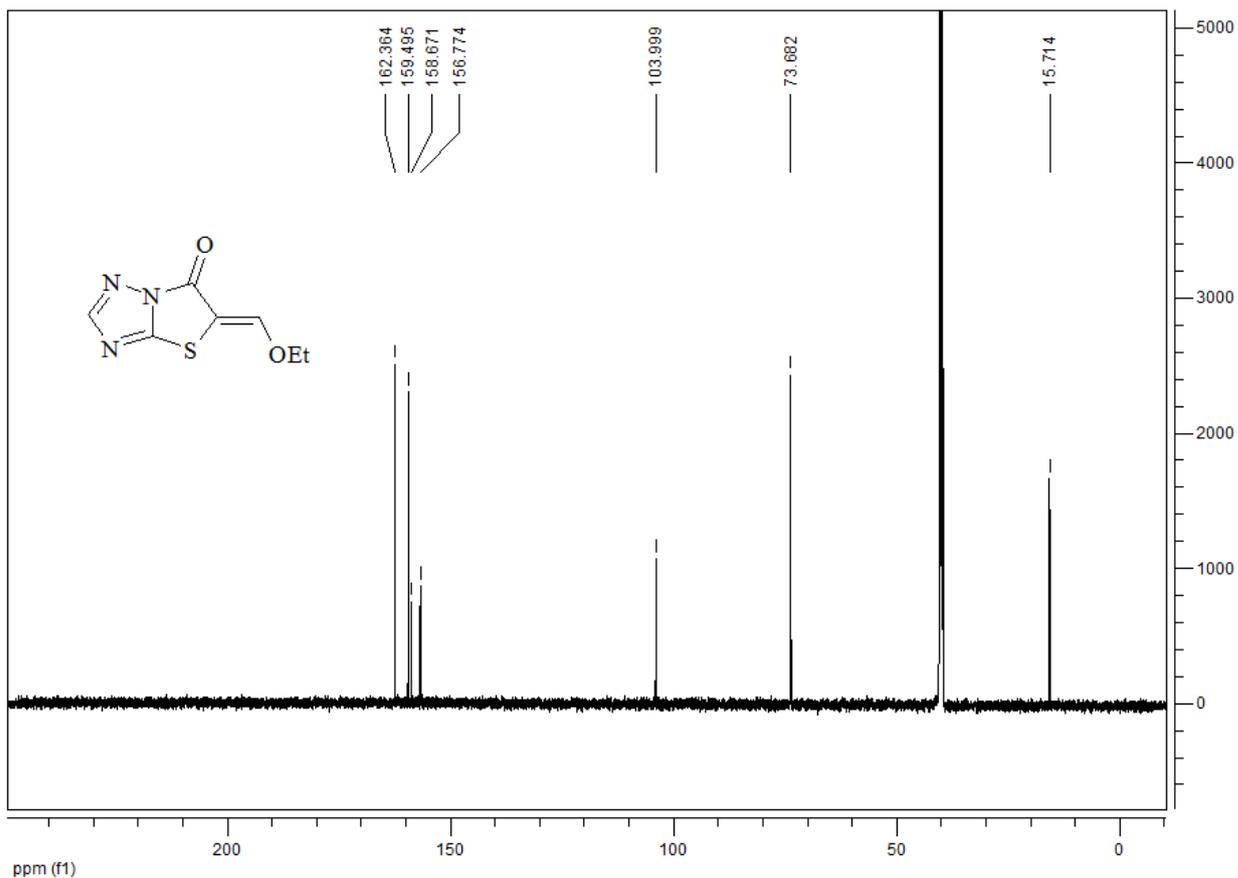


Figure S4. LC-MS compound 4

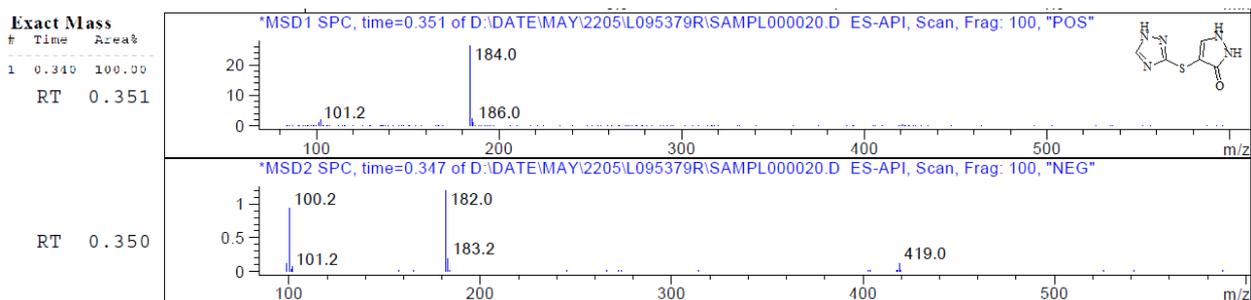


Figure S5. <sup>1</sup>H NMR compound 4

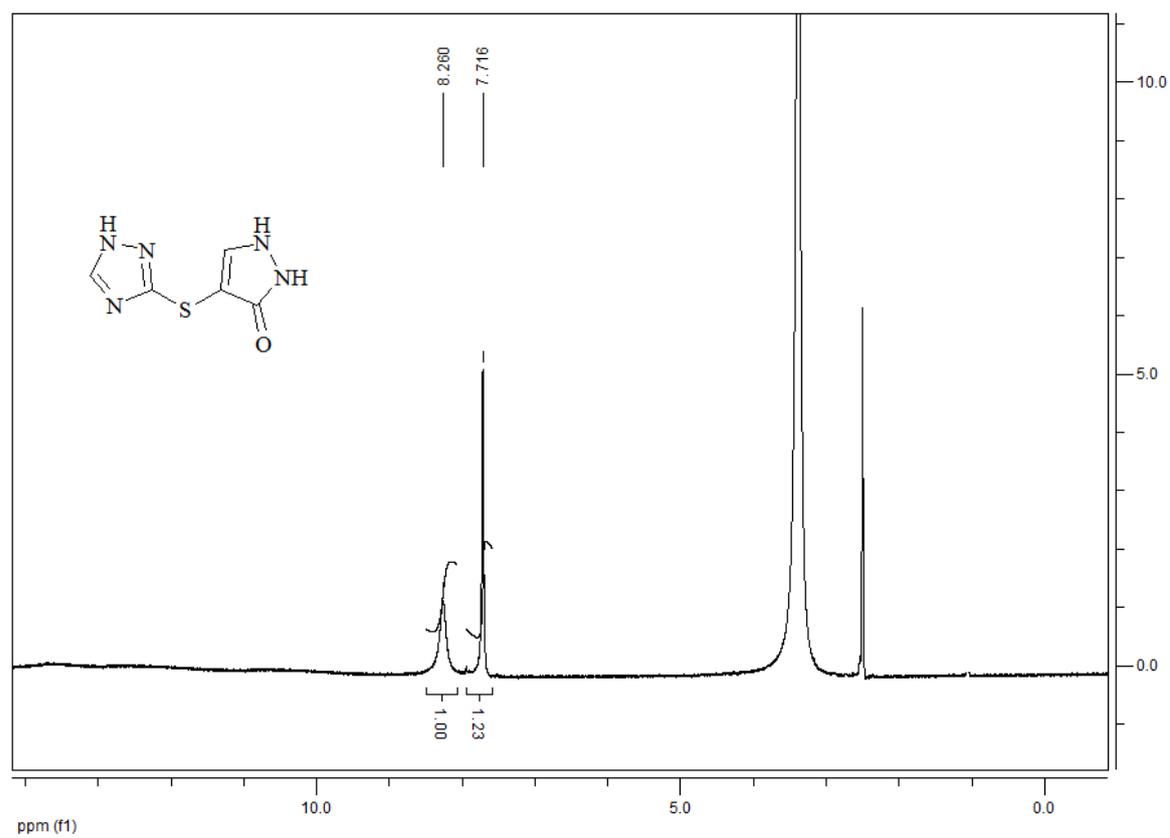


Figure S6. <sup>13</sup>C NMR compound 4

