

Supplementary materials

Table S1. Gradient Elution Procedure for HPLC-DAD

Time (min)	Flow rate (mL/min)	Mobile Phase A (%)	Mobile Phase B(%)
0	0.6	97 %	3 %
7.5	0.6	97 %	3 %
7.6	0.9	97 %	3 %
16.0	0.9	97 %	3 %
16.1	1.2	97 %	3 %
22.0	1.2	97 %	3 %
22.5	0.6	97 %	3 %
25.0	0.6	97 %	3 %

Table S2. Gradient Elution Procedure for UPLC System

Time (min)	Phase A (%)	Phase B (%)	Flow Rate (mL/min)
0.00	90.0	10.0	0.300
2.00	80.0	20.0	0.300
4.00	70.0	30.0	0.300
6.00	60.0	40.0	0.300
8.00	35.0	65.0	0.300
8.10	90.0	10.0	0.300
11.00	90.0	90.0	0.300

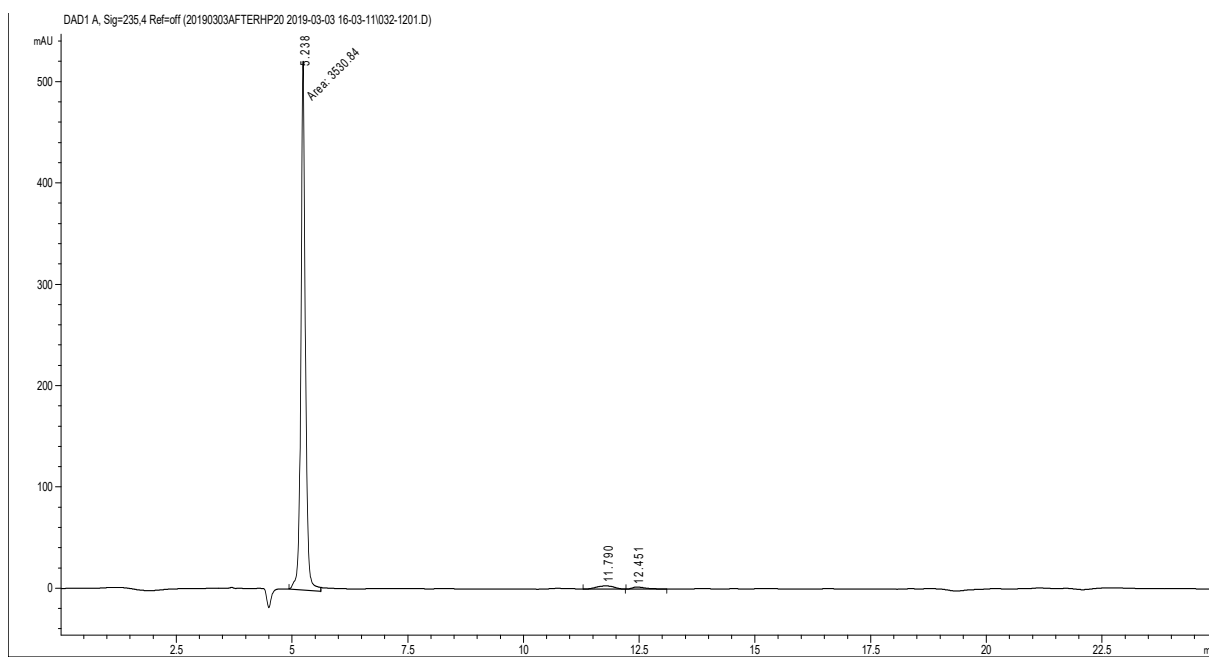
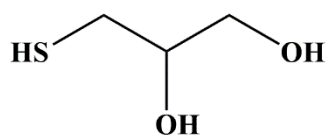
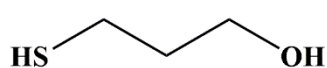


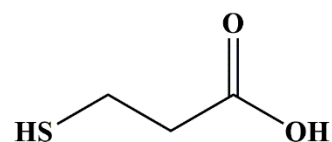
Figure S1. Chromatogram of purified DTH



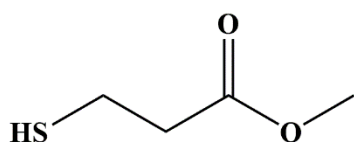
1-mercaptoglycerol



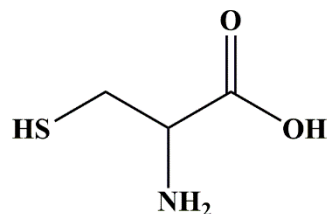
3-mercapto-1-propanol



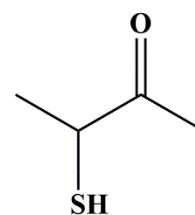
3-mercaptopropanoic acid



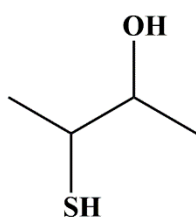
**3-mercaptopropionic acid
methyl ester**



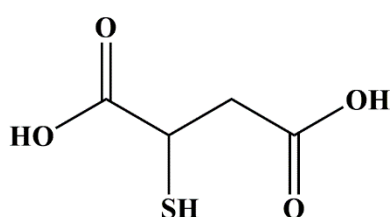
**(2R)-2-amino-3-mercapto
propanoic acid**



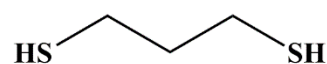
3-mercapto-2-butanone



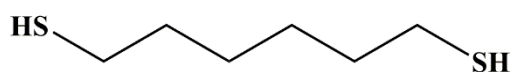
2-mercapto-3-butanol



2-mercaptosuccinic acid



1,3-dimercaptopropane



1,6-dimercaptohexane

Figure S2. Structures of 10 sulfhydryl compounds

LH-20-41-42freezer dry

20180913004 50 (0.878)

1: TOF MS ES-
1.29e5

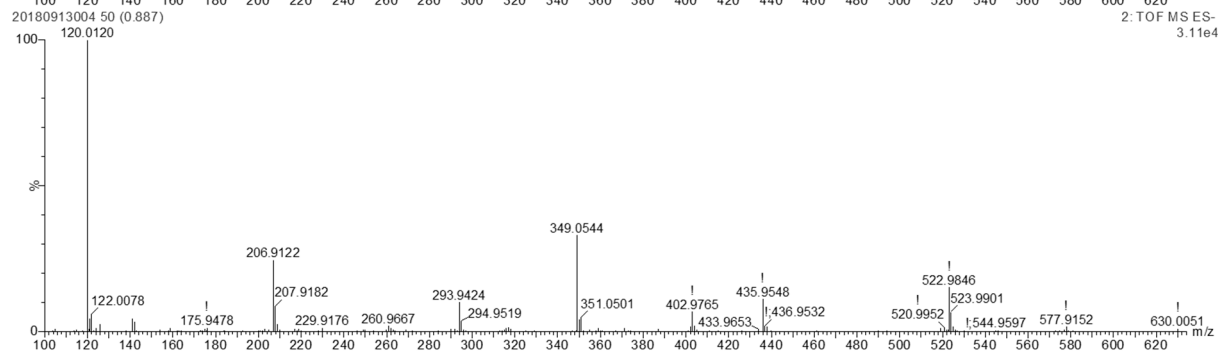
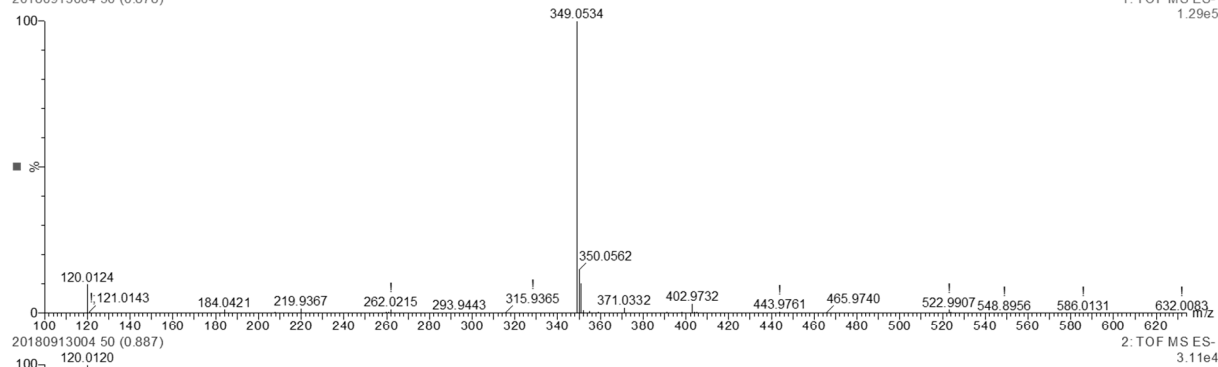


Figure S3. Mass Spectrum of DTH

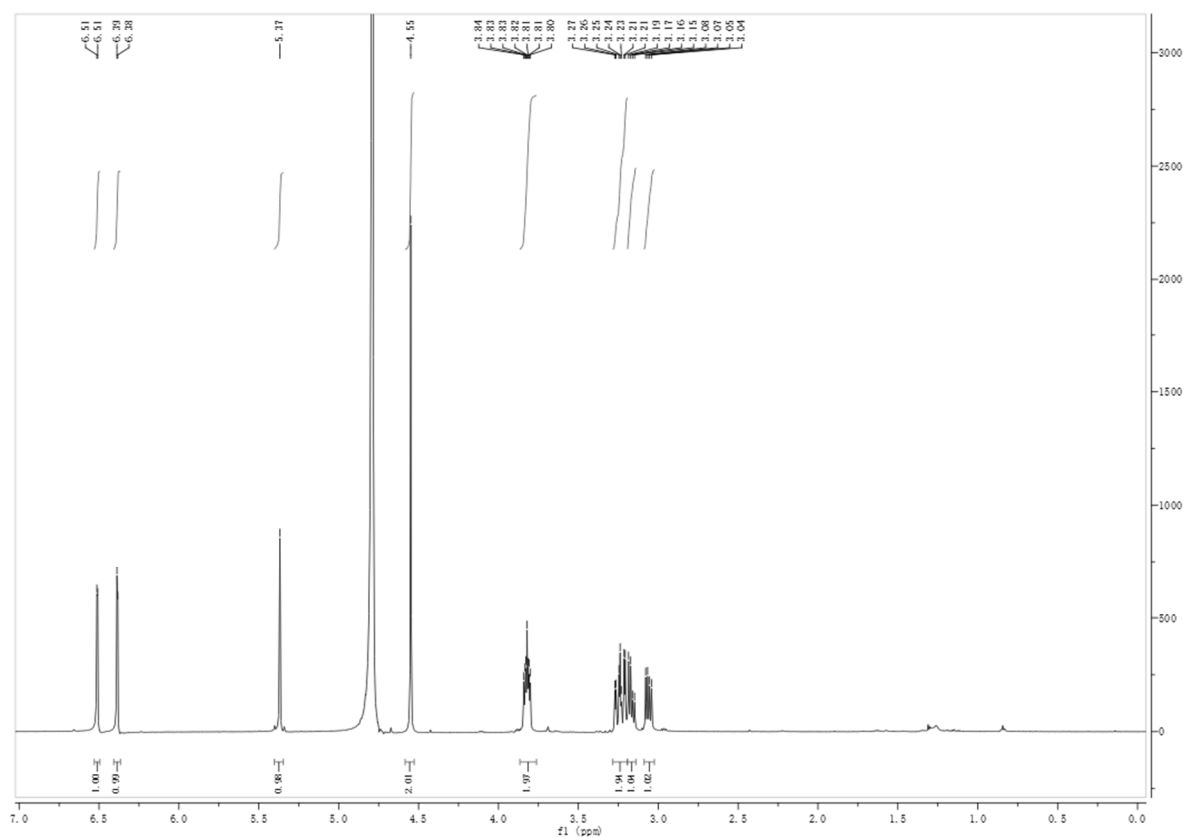


Figure S4. ¹H-NMR Spectrum of DTH

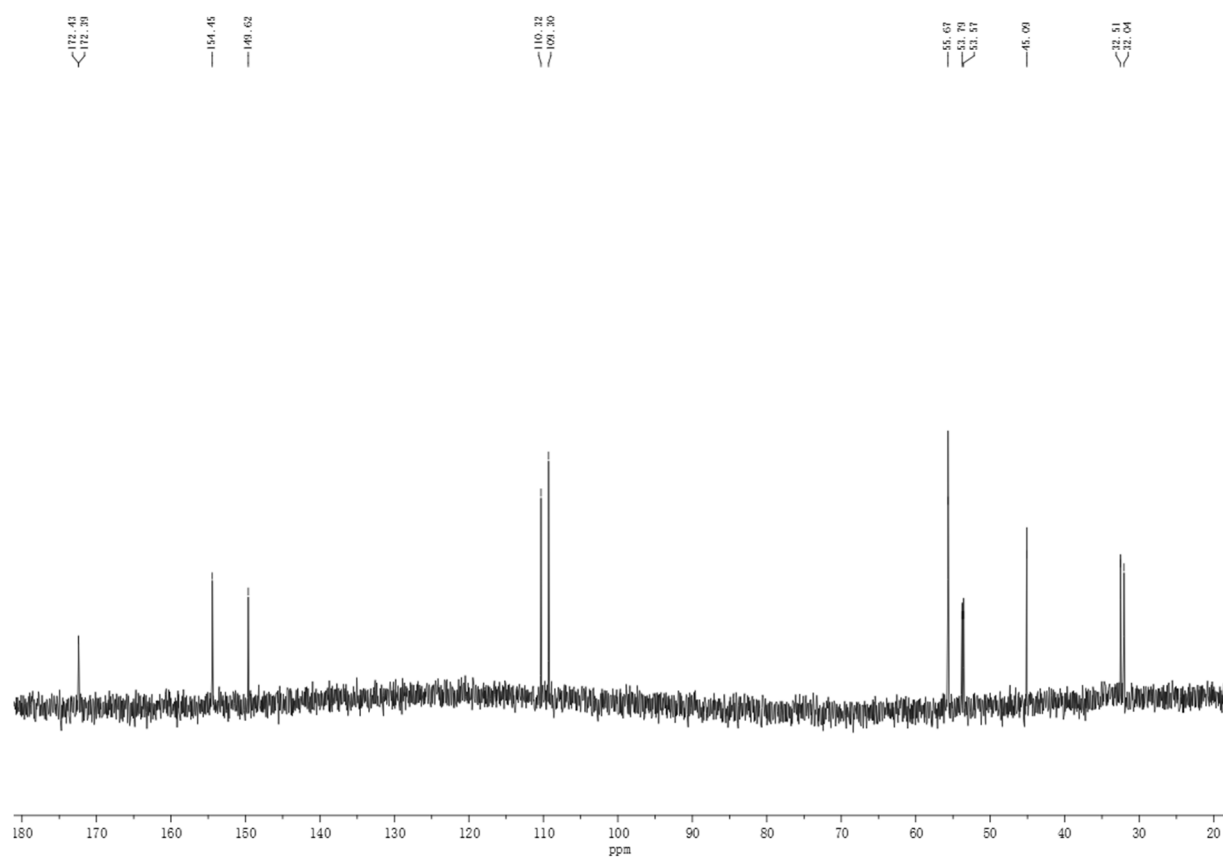


Figure S5. ^{13}C -NMR Spectrum of DTH