

## Supplementary Material

### **Novel fluorinated thiazolidin-4-one derivatives: synthesis and anti- cancer potential against HepG2 and HCT116 cell lines**

*Shreyash D. Kadam<sup>A</sup>, Denni Mammen<sup>A,\*</sup>, Vishwanath Zunjar<sup>A</sup> and Rahul R. Bagul<sup>B</sup>*

<sup>A</sup>School of Science, Navrachana University, Vasna–Bhayli Main Road, Bhayli, Vadodara, Gujarat, 391410, India

<sup>B</sup>Career Point University, National Highway 52, Kota, Rajasthan, 325003, India

\*Correspondence to: Email: [drdenni.mammen@gmail.com](mailto:drdenni.mammen@gmail.com)

# NMR Data

Fig. S1. (E)-2-(2, 6-difluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5a)

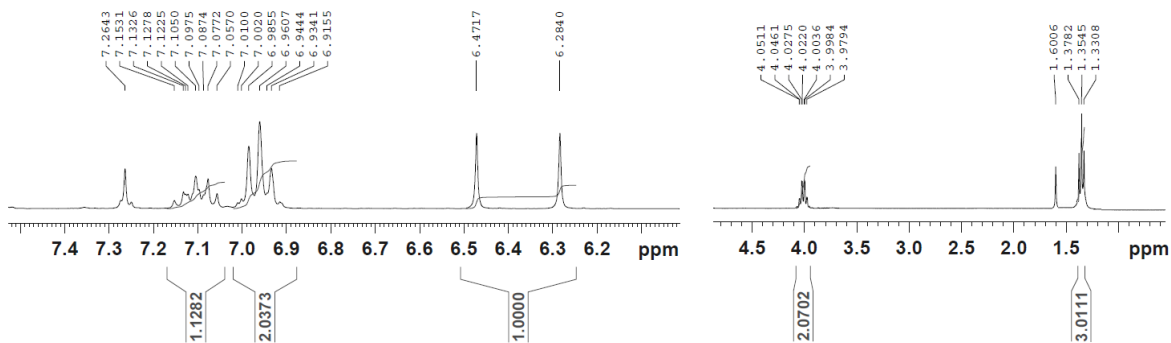


Fig. S2. (E)-2-(2,4-difluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5b)

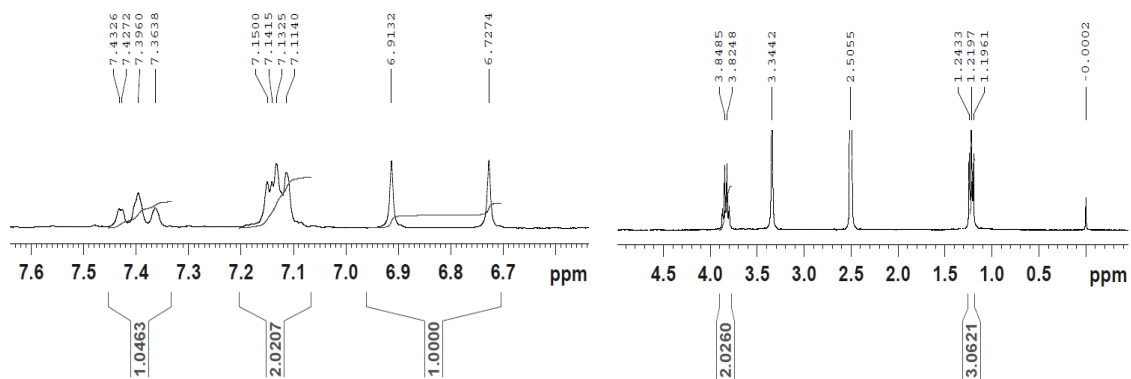


Fig. S3. (E)-2-(3,4-difluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5c)

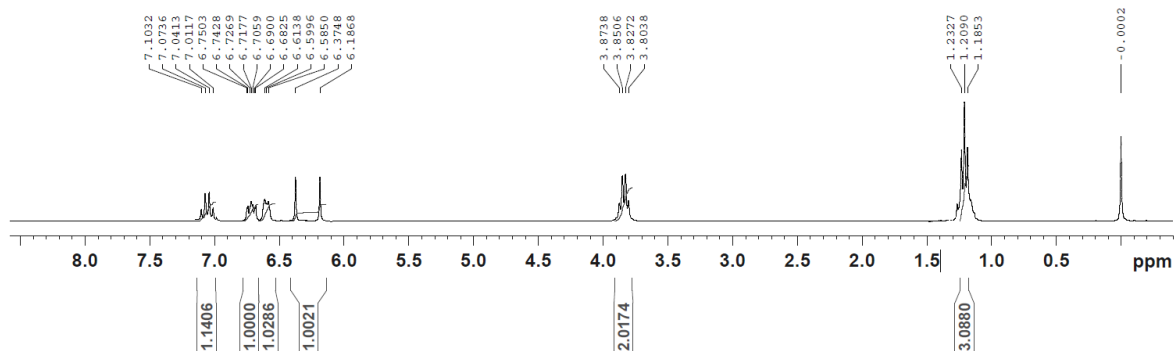


Fig. S4. (E)-2-(3,5-difluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5d)

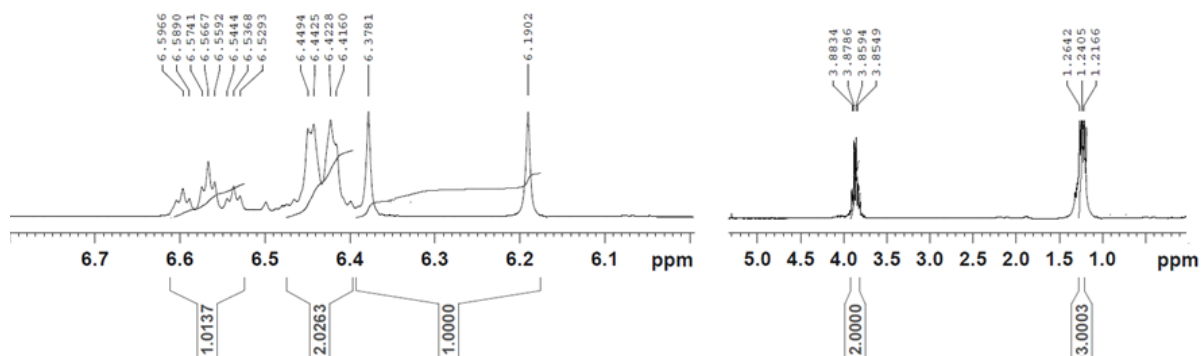


Fig. S5. (E)-2-(2,4,5-trifluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5e)

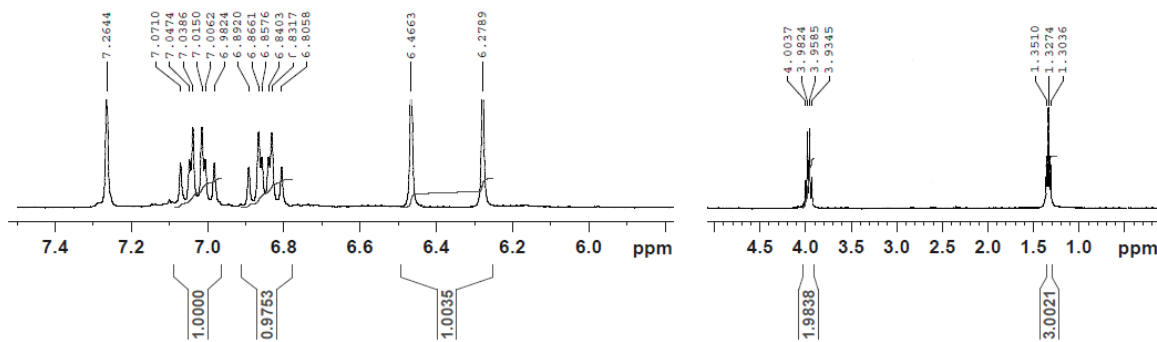


Fig. S6. 2-(3-Chloro-4-fluoro-phenylimino)-3-ethyl-5-fluoro-thiazolidin-4-one (5f)

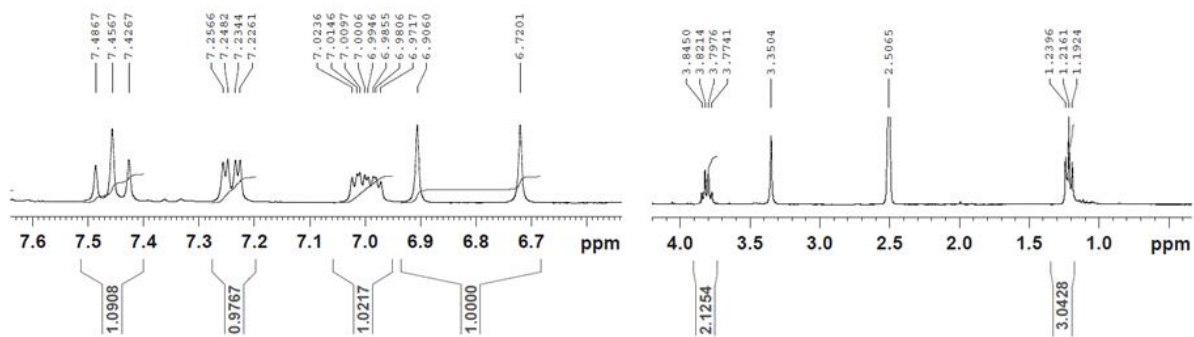


Fig. S7. 2-(2,4-Difluoro-benzylimino)-3-ethyl-5-fluoro-thiazolidin-4-one (5g)

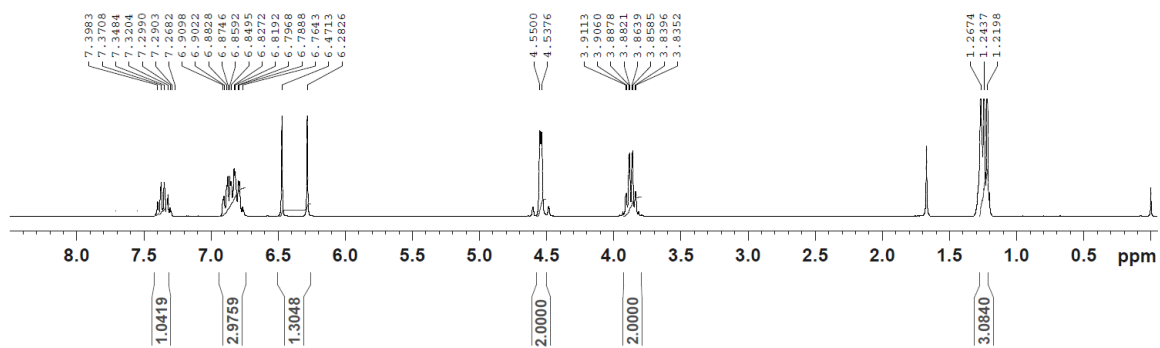


Fig. S8. 3-Ethyl-5-fluoro-2-(2-trifluoromethyl-phenylimino)-thiazolidin-4-one (5h)

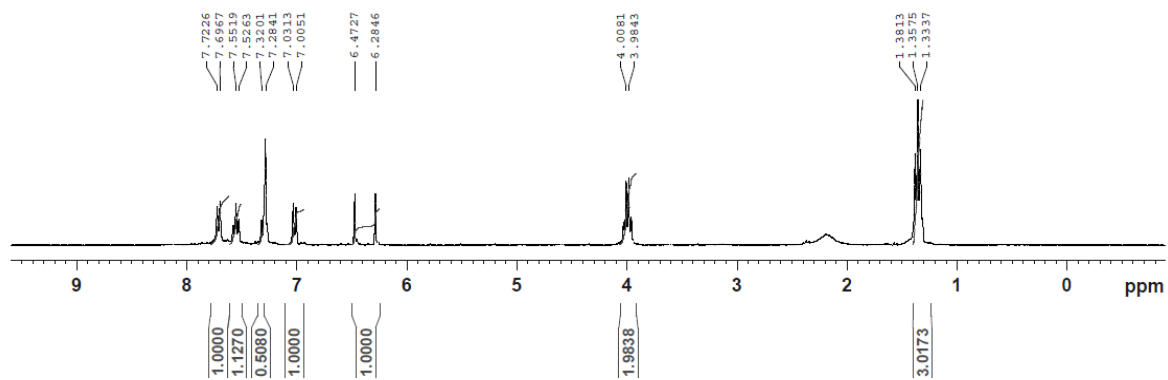


Fig. S9. 3-Ethyl-5-fluoro-2-(3-trifluoromethyl-phenylimino)-thiazolidin-4-one (5i)

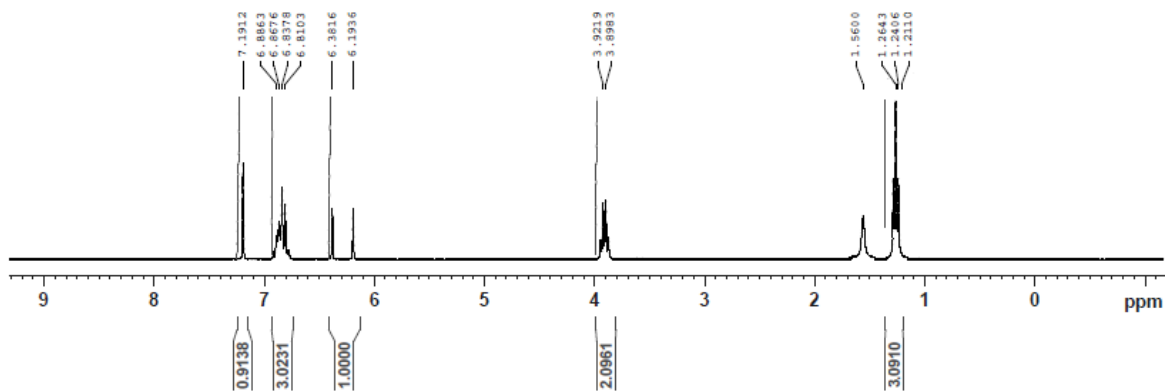


Fig. S10. 3-Ethyl-5-fluoro-2-(4-trifluoromethyl-phenylimino)-thiazolidin-4-one (5j)

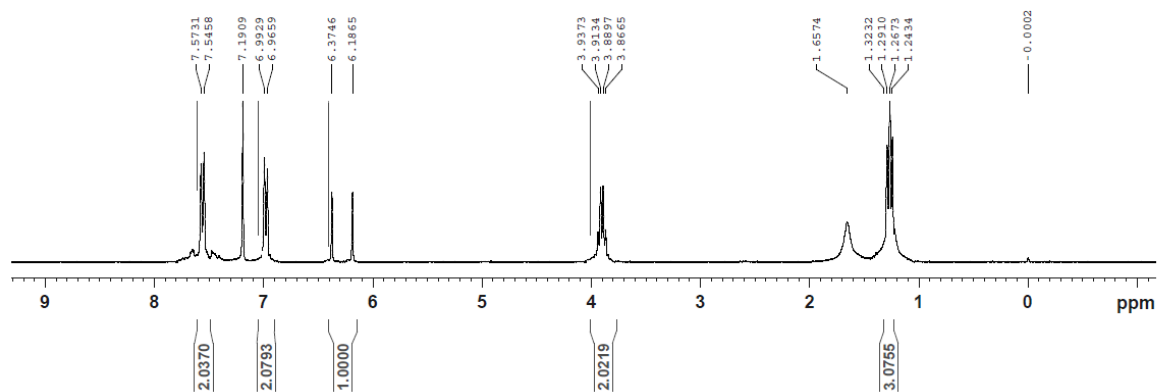


Fig. S11. 2-(3,5-Bis-trifluoromethyl-phenylimino)-3-ethyl-5-fluoro-thiazolidin-4-one (5k)

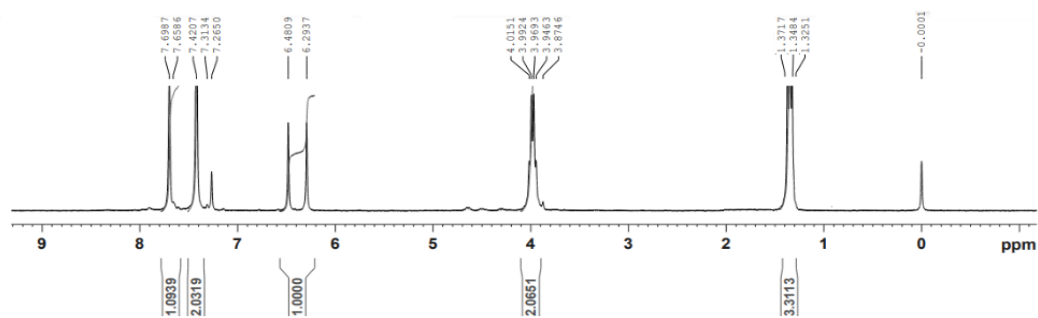


Fig. S12. 3-Ethyl-5-fluoro-2-(2-methyl-3-trifluoromethyl-phenylimino)-thiazolidin-4-one (5l)

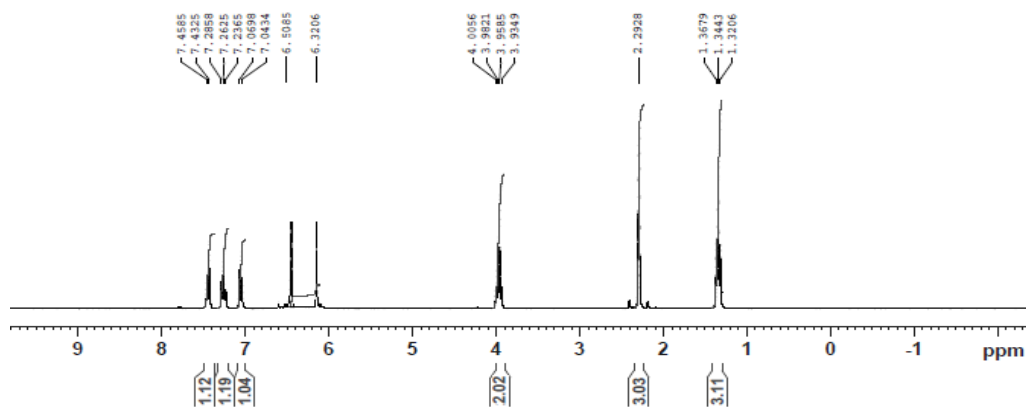


Fig. S13. 3-Ethyl-5-fluoro-2-(4-nitro-phenylimino)-thiazolidin-4-one (5m)

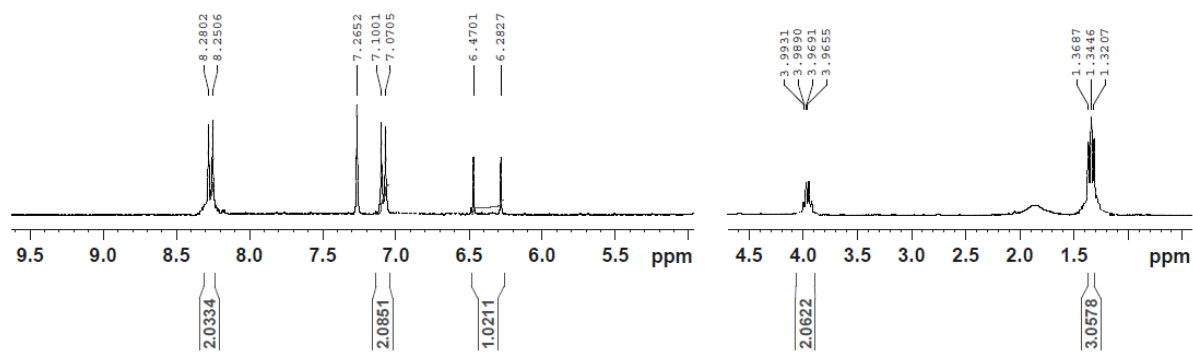


Fig. S14. 2-[3,5-Dichloro-4-(1,1,2,2-tetrafluoro-ethoxy)-phenylimino]-3-ethyl-5-fluoro-thiazolidin-4-one (5n)

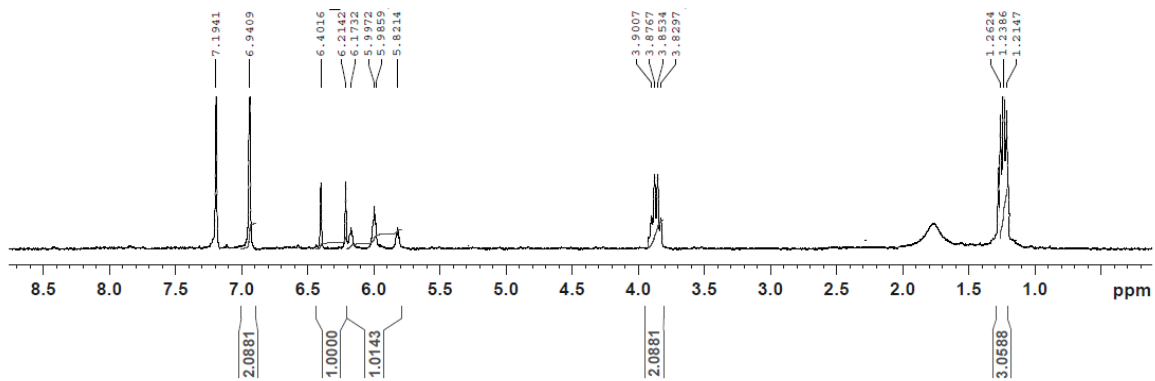
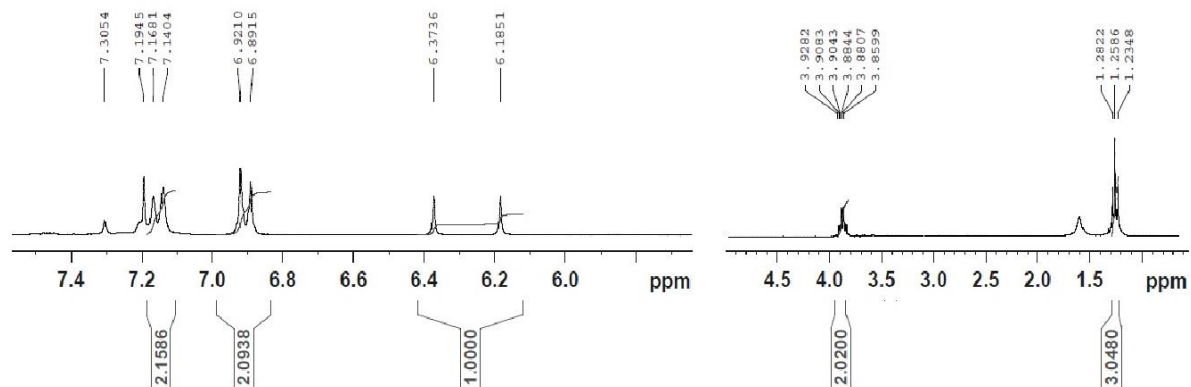
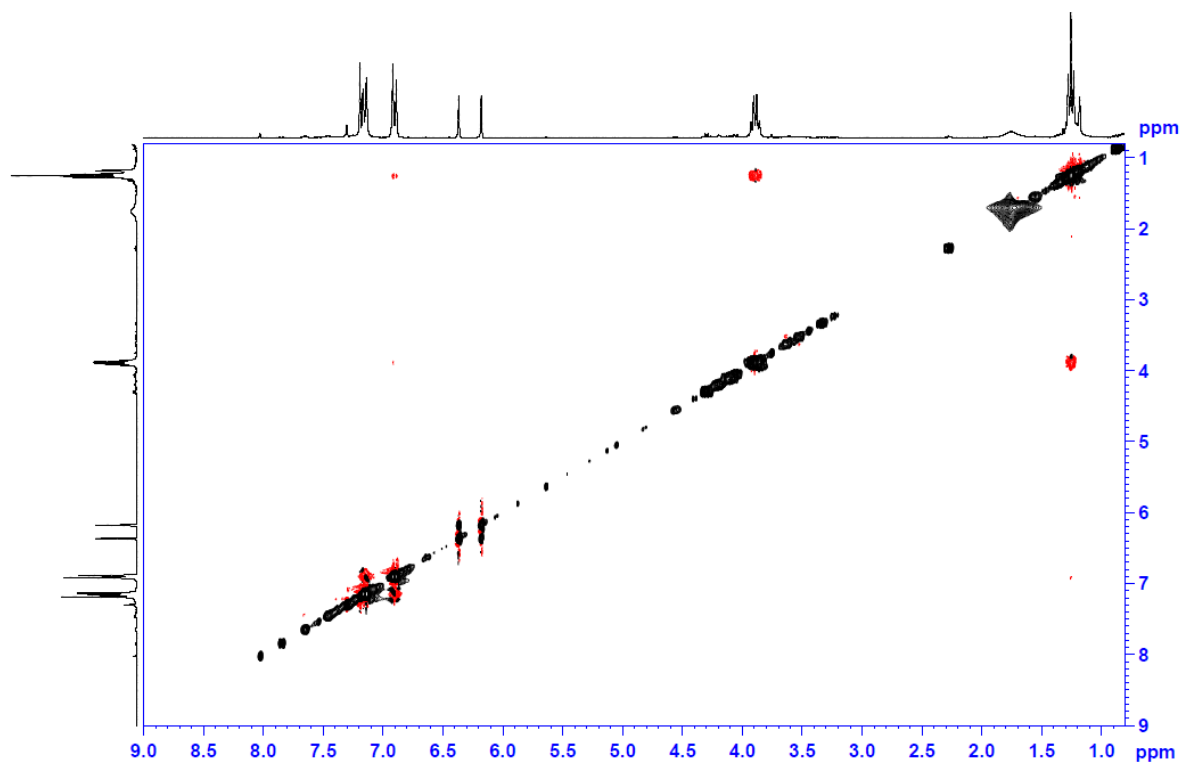


Fig. S15. 3-Ethyl-5-fluoro-2-(4-trifluoromethoxy-phenylimino)-thiazolidin-4-one (5o)



## NOESY NMR Data

Fig. S16. (E)-2-(2,4-difluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5b)



## LCMS Data

Fig. S17. (E)-2-(2,6-difluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5a)

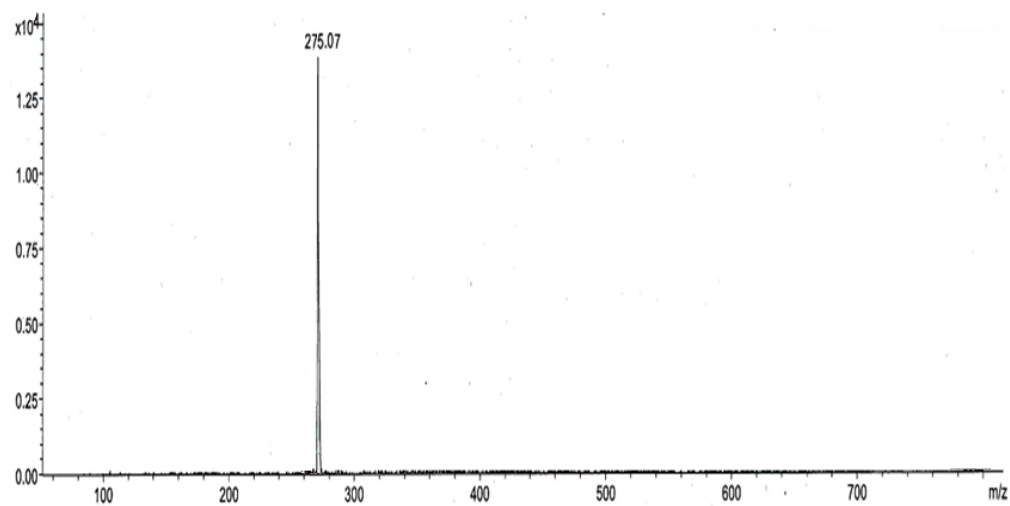


Fig. S18. (E)-2-(2,4-difluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5b)

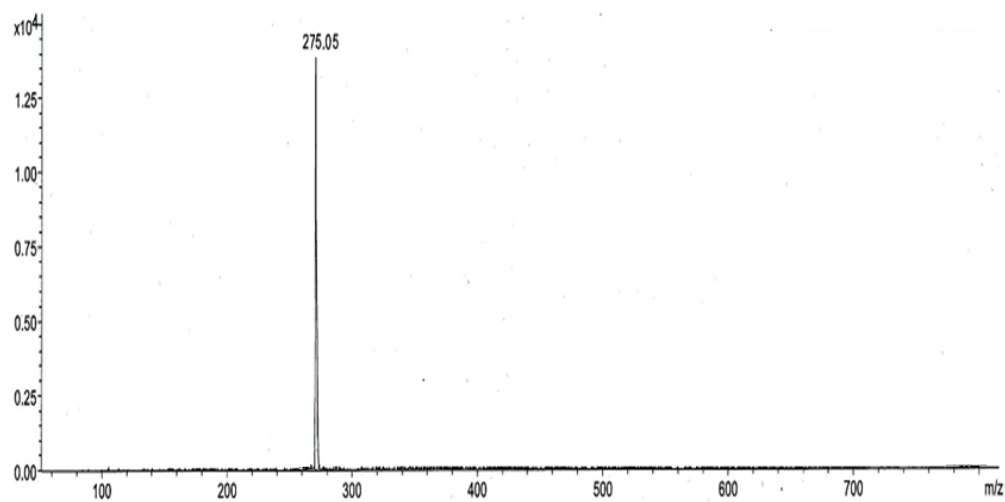
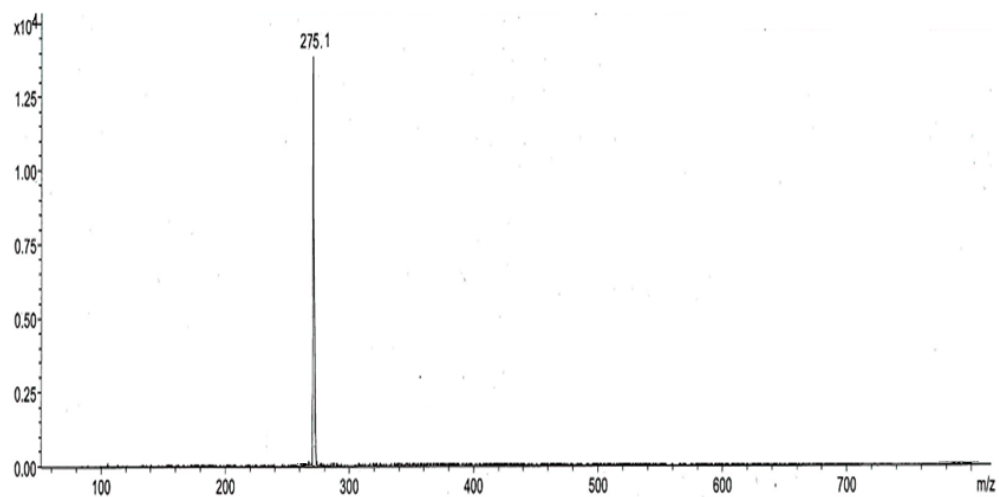
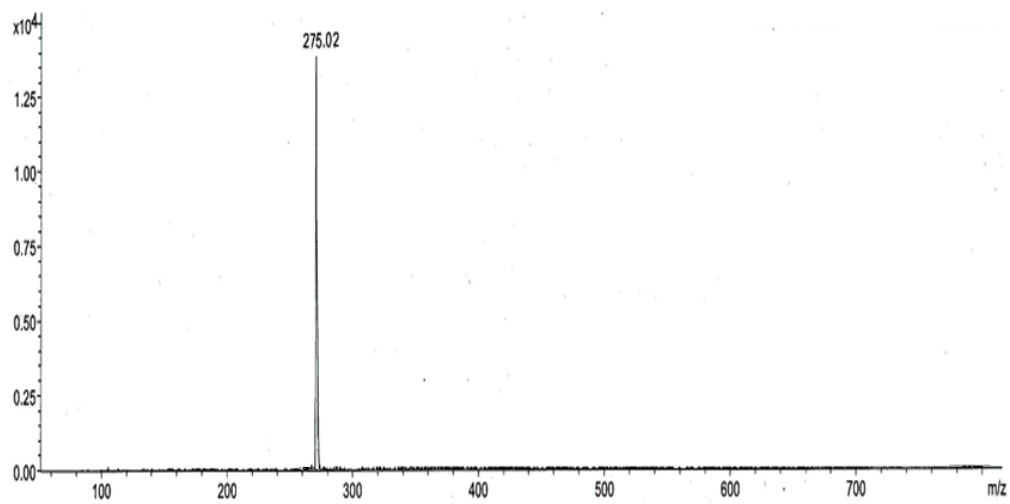


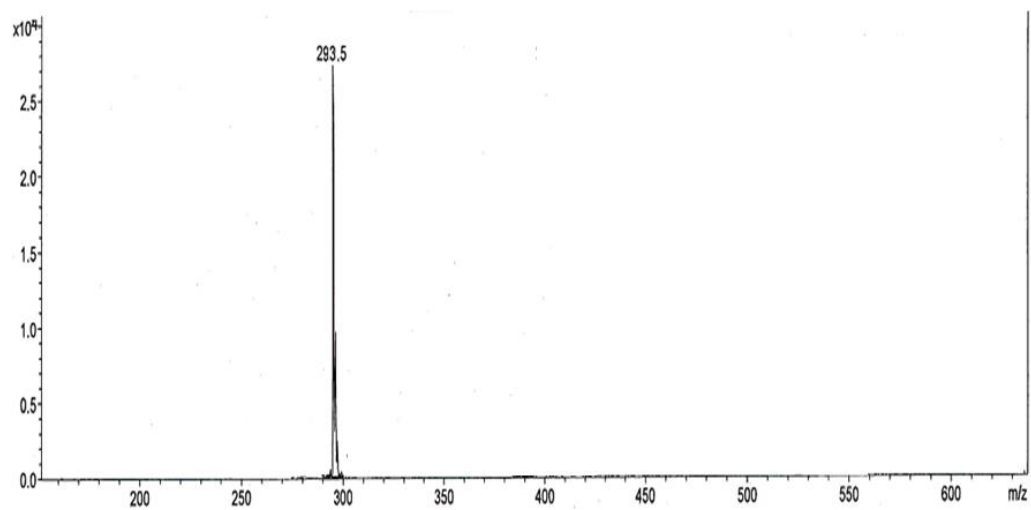
Fig. S19. (E)-2-(3,4-difluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5c)



**Fig. S20. (E)-2-(3,5-difluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5d)**



**Fig. S21. (E)-2-(2,4,5-trifluorophenylimino)-3-ethyl-5-fluorothiazolidin-4-one (5e)**



**Fig. S22. 2-(3-Chloro-4-fluoro-phenylimino)-3-ethyl-5-fluoro-thiazolidin-4-one (5f)**

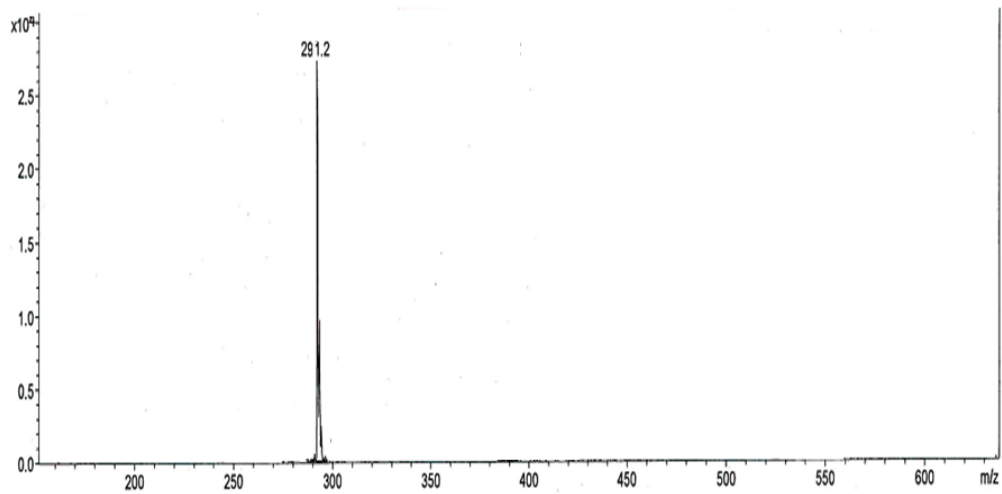




Fig. S23. 2-(2,4-Difluoro-benzylimino)-3-ethyl-5-fluoro-thiazolidin-4-one (5g)

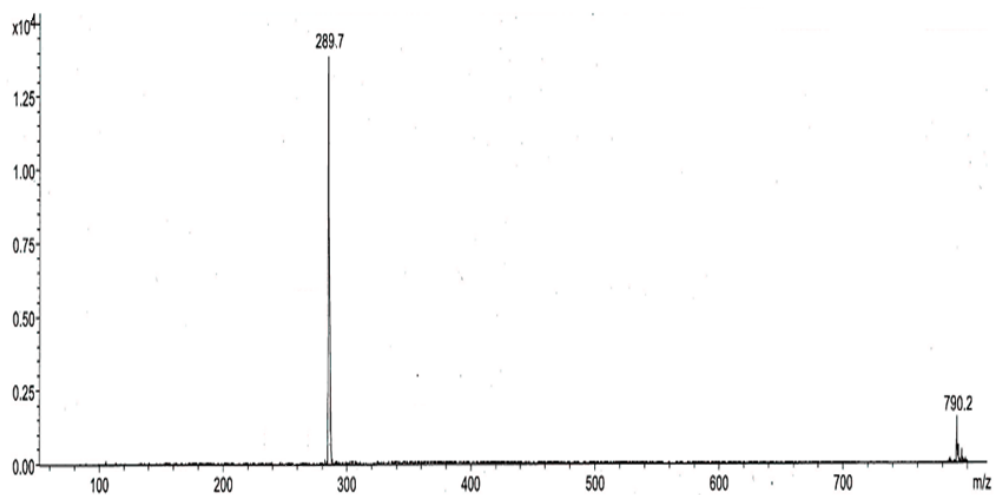


Fig. S24. 3-Ethyl-5-fluoro-2-(2-trifluoromethyl-phenylimino)-thiazolidin-4-one (5h)

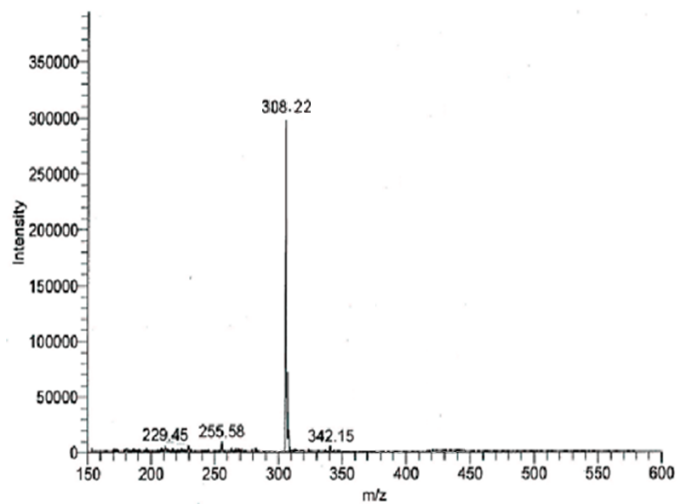


Fig. S25. 3-Ethyl-5-fluoro-2-(3-trifluoromethyl-phenylimino)-thiazolidin-4-one (5i)

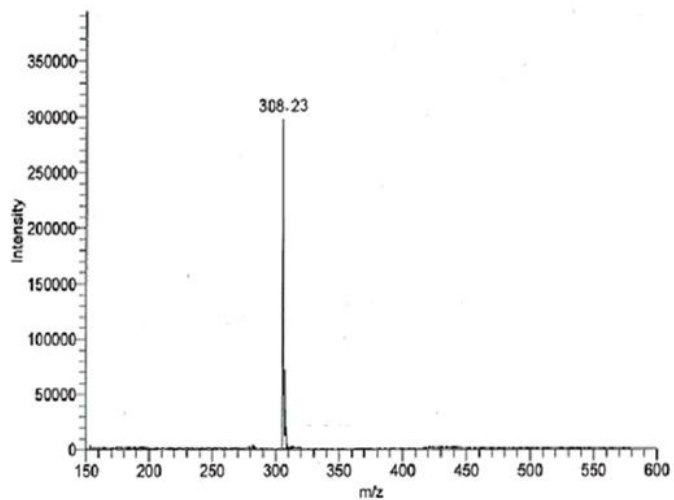


Fig. S26. 3-Ethyl-5-fluoro-2-(4-trifluoromethyl-phenylimino)-thiazolidin-4-one (5j)

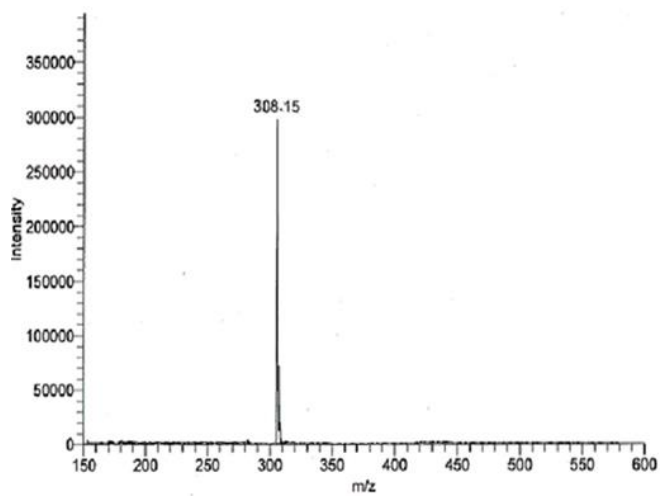


Fig. S27. 2-(3,5-Bis-trifluoromethyl-phenylimino)-3-ethyl-5-fluoro-thiazolidin-4-one (5k)

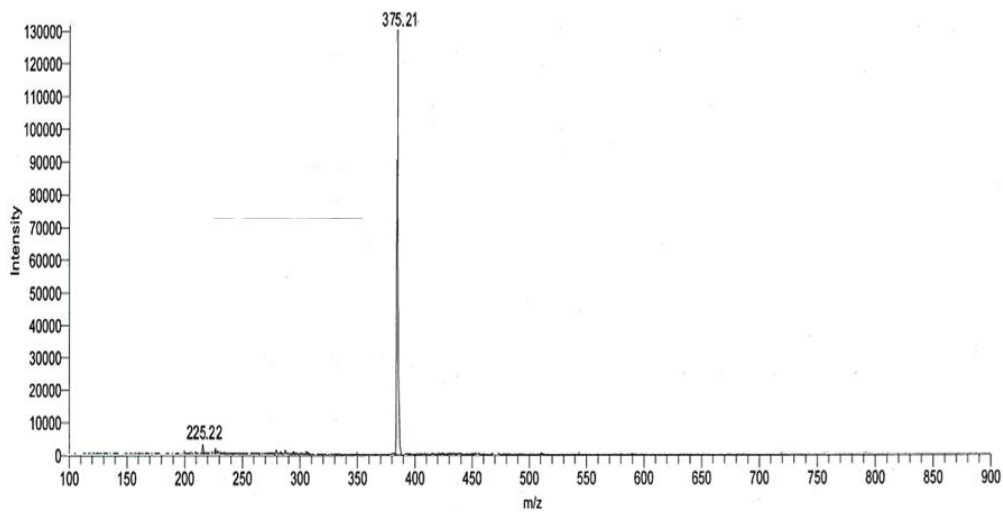
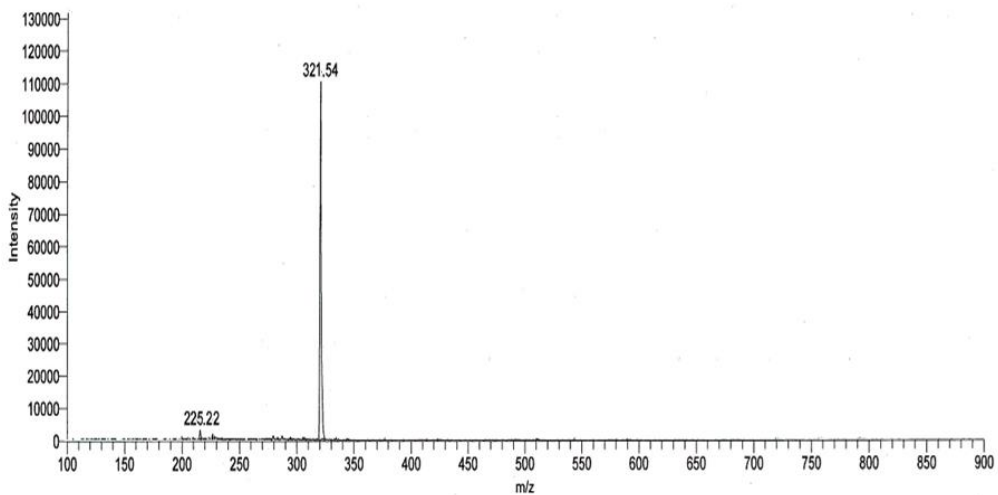
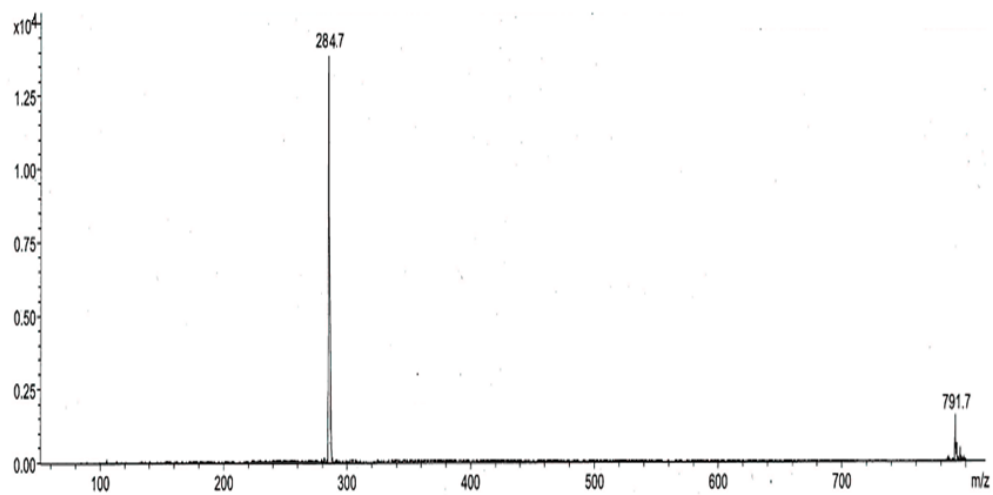


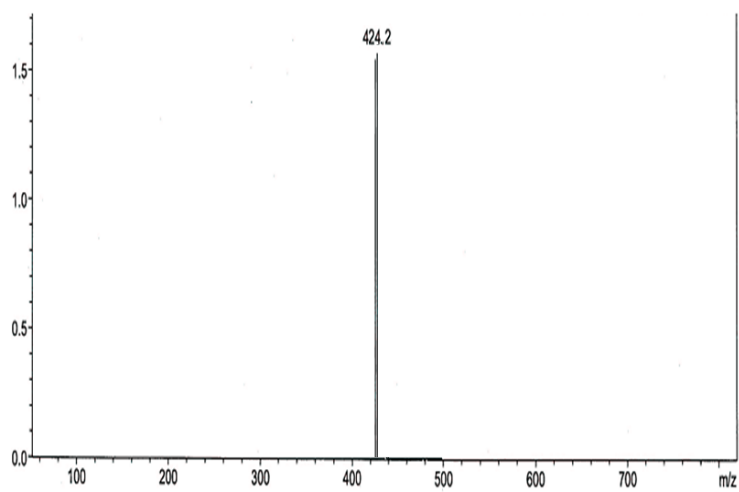
Fig. S28. 3-Ethyl-5-fluoro-2-(2-methyl-3-trifluoromethyl-phenylimino)-thiazolidin-4-one (5l)



**Fig. S29. 3-Ethyl-5-fluoro-2-(4-nitro-phenylimino)-thiazolidin-4-one (5m)**



**Fig. S30. 2-[3,5-Dichloro-4-(1,1,2,2-tetrafluoro-ethoxy)-phenylimino]-3-ethyl-5-fluoro-thiazolidin-4-one (5n)**



**Fig. S31. 3-Ethyl-5-fluoro-2-(4-trifluoromethoxy-phenylimino)-thiazolidin-4-one (5o)**

