

**Capture of the volatile carbonyl metabolite of flecainide
on 2,4-dinitrophenylhydrazine cartridge for
quantitation by stable-isotope dilution mass
spectrometry coupled with chromatography**

Laszlo Prokai^{a,*}, Szabolcs Szarka^a, Xiaoli Wang¹, Katalin Prokai-Tatrai^{a,b}

^aDepartment of Molecular Biology and Immunology, University of North Texas Health Science Center, 3500 Camp Bowie Boulevard, Fort Worth, TX 76107-2699, USA

^bDepartment of Pharmacology and Neuroscience, University of North Texas Health Science Center, 3500 Camp Bowie Boulevard, Fort Worth, TX 76107-2699, USA

Supplementary Information

Fig. S7. Full-scan LC-ESI mass spectrum (A) of TFAA-*d*₃-DNPH and CID-MS/MS spectrum (B) of the *m/z* 280 [M-H]⁻ ion.

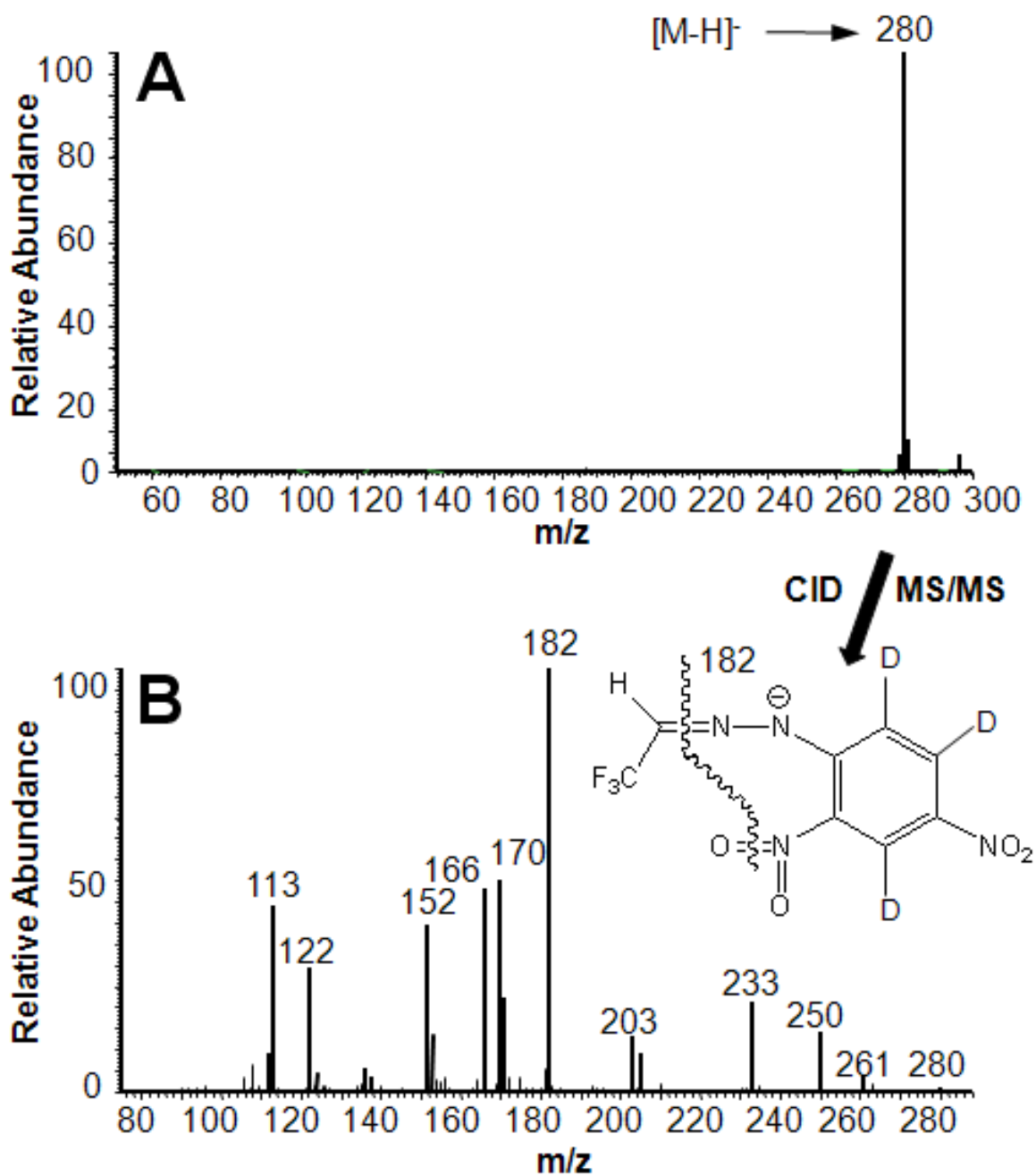
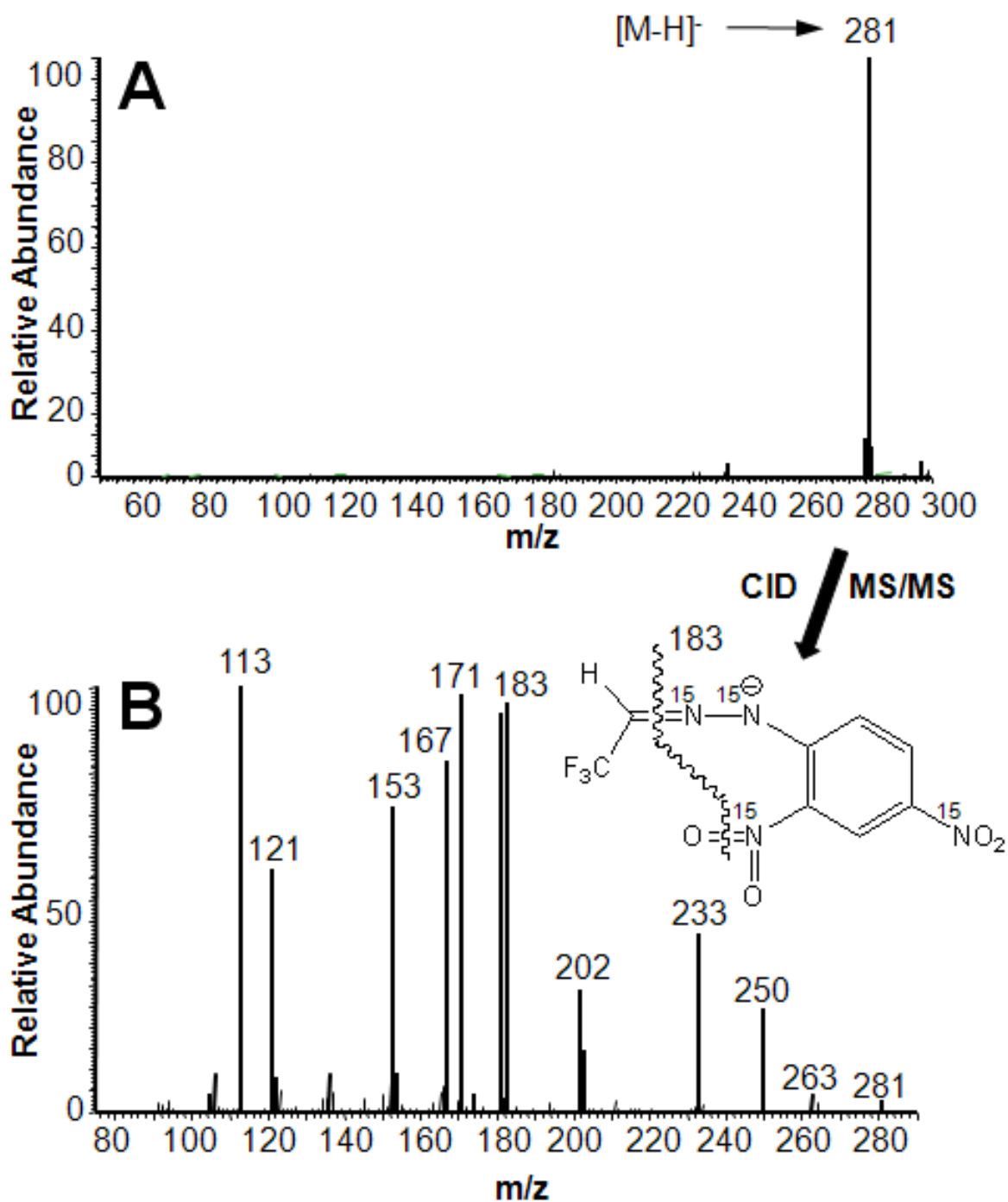


Fig. S8. Full-scan LC-ESI mass spectrum (A) of TFAA- $^{15}\text{N}_4$ -DNPH and CID-MS/MS spectrum (B) of the m/z 281 $[\text{M}-\text{H}]^-$ ion.



Supplementary Table 1

Summary method validation results for of the LC-ESI-MS using narrow-range scans (m/z 275 to 283).

TFAA-DNPH (ng injected)	Repeatability			
	Area Ratio (RSD %) ^a		Retention Time (RSD %) ^b	
	Intra-day ^c	Inter-day ^d	Intra-day ^c	Inter-day ^d
5	6.1	11.8	0.19	0.49
10	3.7	4.0	0.25	0.56
100	2.8	2.6	0.29	0.57

C_Q ^e (ng/ μ L)	Accuracy		
	C_M ^f \pm SD (ng/ μ L)	Precision (RSD %)	Accuracy (%)
1.56	1.45 \pm 0.05	3.7	-7.3
6.25	5.95 \pm 0.08	1.4	-4.9
25	25.4 \pm 0.7	2.8	1.7

^a Area Ratio (RSD %) denotes precision expressed in RSD % of analyte/IS area ratios.

^b Retention Time (RSD %) denotes precision expressed in RSD % of retention times.

^c $n = 5$.

^d $n = 15$.

^e C_Q denotes the nominal concentration of TFAA-DNPH in QC samples.

^f C_M denotes the measured concentration of TFAA-DNPH in QC samples.