

Supporting Information

New insights into the design of inhibitors of human *S*-adenosylmethionine decarboxylase: Studies of adenine C⁸ substitution in structural analogues of AdoMetDC

Diane E. McCloskey, Shridhar Bale, John A. Secrist III, Anita Tiwari, Thomas H. Moss III, Jacob Valiyaveetil, Wesley Brooks, Wayne C. Guida, Anthony E. Pegg and Steven E. Ealick

Purity as Evidenced by Elemental Analyses of the Target compounds

Compound	Empirical Formula	Calculated, %				Found, %			
		C	H	N	S	C	H	N	S
5	C ₁₃ H ₂₁ N ₇ O ₄ .1.0 H ₂ SO ₄ .0.5C ₂ H ₅ OH.1.0H ₂ O	35.14	5.90	20.49		34.91	6.06	20.69	
12a	C ₁₄ H ₂₃ N ₇ O ₄ .2.2H ₂ SO ₄ .0.1C ₂ H ₅ OH.0.5H ₂ O	29.26	5.01	16.82		29.48	5.21	16.47	
12b	C ₁₄ H ₂₄ N ₈ O ₄ .2.1H ₂ SO ₄ .0.3C ₂ H ₅ OH.0.2H ₂ O	29.63	5.17	18.93	11.37	29.43	5.20	19.05	11.13
12c	C ₁₉ H ₂₅ N ₇ O ₄ .2.0H ₂ SO ₄ .3H ₂ O	34.28	5.29	14.72	9.63	34.21	5.34	14.59	9.59
14a	C ₁₆ H ₂₈ N ₈ O ₄ .0.4H ₂ SO ₄ .0.2C ₂ H ₅ OH.0.9H ₂ O	42.71	6.95	24.30	2.78	42.53	6.84	24.16	2.56
14b	C ₂₁ H ₂₉ N ₇ O ₄ .1.75H ₂ SO ₄ .0.05C ₂ H ₅ OH.2.4H ₂ O	38.36	5.73	14.84	8.49	38.23	5.74	14.78	8.59
14c	C ₁₅ H ₂₅ N ₇ O ₅ .1.9H ₂ SO ₄ .0.1C ₂ H ₅ OH.2H ₂ O	29.91	5.51	16.06	9.98	30.03	5.49	16.14	9.74
14d	C ₁₆ H ₂₇ N ₇ O ₄ .1.9H ₂ SO ₄ .0.4C ₂ H ₅ OH	34.42	5.70	16.71		34.56	5.67	16.70	
14e	C ₁₇ H ₂₉ N ₇ O ₄ .1.9H ₂ SO ₄ .0.2C ₂ H ₅ OH	35.36	5.79	16.58		35.49	5.87	16.61	
14f	C ₁₅ H ₂₅ N ₇ O ₄ .2.0H ₂ SO ₄ .0.3C ₂ H ₅ OH.1.5H ₂ O	30.99	5.65	16.22	10.61	31.02	5.40	16.30	10.49
17c	C ₁₆ H ₂₄ N ₆ O ₅ .0.5CHCl ₃ .0.3CH ₃ OH	49.59	6.19	21.22		49.72	6.29	21.17	
17d	C ₁₅ H ₂₃ N ₇ O ₄ .1.5H ₂ SO ₄ .0.8H ₂ O	34.19	5.27	18.60	9.12	34.34	5.03	18.45	9.12
17e	C ₁₆ H ₂₅ N ₇ O ₄ .1.1H ₂ SO ₄ .1.05H ₂ O	37.96	5.83	19.36	6.95	37.64	5.84	19.43	6.81
17f	C ₁₄ H ₂₁ N ₇ O ₄ .1.45H ₂ SO ₄ .0.2C ₂ H ₅ OH.1.3H ₂ O	32.55	5.18	18.92	8.97	32.35	5.24	18.87	8.80
17j	C ₁₄ H ₂₁ N ₇ O ₄ .1.9H ₂ SO ₄ .1.6H ₂ O	29.68	4.98	17.31	10.75	29.54	4.68	17.05	10.64
17k	C ₁₅ H ₂₄ N ₈ O ₄ .2.0 H ₂ SO ₄ .2.7H ₂ O	28.81	5.38	17.92	10.25	28.93	5.30	17.66	10.19
17l	C ₁₄ H ₂₂ N ₈ O ₄ .2.0 H ₂ SO ₄ .2.0H ₂ O	28.09	5.05	18.72	10.71	27.81	5.14	19.10	10.51
17m	C ₁₄ H ₂₂ N ₈ O ₄ .0.2 CH ₃ OH. 0.4H ₂ O	44.88	6.25	29.48		44.91	6.17	29.44	
18a	C ₁₅ H ₂₆ N ₈ O ₃ .2.4H ₂ SO ₄ .0.2C ₂ H ₅ OH	30.27	5.27	18.34		30.25	5.28	18.54	
18b	C ₂₀ H ₂₇ N ₇ O ₃ .2.2H ₂ SO ₄ .0.1C ₂ H ₅ OH.2.5H ₂ O	28.45	1.36	4.74		28.75	1.38	4.79	
18d	C ₁₄ H ₂₃ N ₇ O ₃ .2.0H ₂ SO ₄ .0.25C ₂ H ₅ OH.0.7H ₂ O	31.23	5.40	17.58		31.21	5.49	17.48	
18e	C ₁₃ H ₂₁ N ₇ O ₃ .0.25CHCl ₃ .0.5H ₂ O	47.80	7.24	27.09		47.76	7.13	27.03	
18f	C ₁₄ H ₂₃ N ₇ O ₃ .0.5 CH ₃ OH. 0.3H ₂ O	48.53	7.19	27.32		48.73	7.17	27.09	
19a	C ₁₅ H ₂₆ N ₈ O ₃ .2.4H ₂ SO ₄ .0.2C ₂ H ₅ OH	35.73	5.49	14.44		35.92	5.39	14.49	
19b	C ₂₀ H ₂₇ N ₇ O ₃ .1.7H ₂ SO ₄ .0.05C ₂ H ₅ OH.3.3H ₂ O	37.32	5.82	15.15	8.67	37.29	5.79	15.18	8.40
19c	C ₁₃ H ₂₁ N ₇ O ₃ .0.05 CH ₃ OH.0.1H ₂ O	47.97	6.60	30.00		47.70	6.86	29.95	
19d	C ₁₄ H ₂₃ N ₇ O ₃ .0.4 CH ₃ OH. 0.7H ₂ O	43.93	6.19	27.06		44.15	6.27	27.18	
21c	C ₁₅ H ₂₅ N ₇ O ₃ .2.0H ₂ SO ₄ .2.5H ₂ O	30.40	5.78	16.54	10.52	30.55	5.85	16.19	10.82
21d	C ₁₆ H ₂₇ N ₇ O ₃ .2.5H ₂ SO ₄ .2.5H ₂ O	29.72	5.61	15.16		29.86	5.57	14.81	
22a	C ₁₄ H ₂₃ N ₉ O ₃ .0.05CHCl ₃ .3.5H ₂ O	38.84	6.97	29.01		38.54	6.65	29.25	
22c	C ₁₄ H ₂₂ N ₈ O ₄ .1.2C ₂ H ₅ OH.0.2 CH ₃ OH	46.58	7.06	26.18		46.93	7.22	26.43	

Compound	Empirical Formula	Calculated, %				Found, %			
		C	H	N	S	C	H	N	S
23a	$C_{13}H_{20}N_6O_3 \cdot 0.35CHCl_3 \cdot 0.5C_2H_5OH$	45.43	6.14	22.95		45.54	5.85	22.79	
23b	$C_{12}H_{18}N_6O_3 \cdot 0.35 CH_3OH$	48.55	6.40	27.50		48.80	6.40	27.23	
25b	$C_{13}H_{20}ClN_5O_3S \cdot 2H_2O$	39.24	6.07	17.60		39.35	5.97	17.55	
25d	$C_{12}H_{18}ClN_5O_3S \cdot 1.5H_2O \cdot 0.1C_2H_5OH$	38.96	5.80	18.32	8.44	38.98	5.68	18.29	8.57