Synthesis and evaluation of benzothiazole-based analogs as novel, potent fatty acid amide hydrolase inhibitors

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Elemental Analyses for compounds 13a-17c

Compd No.	Molecular Formula	% For C	% For H	% For N
13a	$C_{22}H_{25}N_3O_3S_2$	59.57 (59.57)	5.67 (5.68)	9.40 (9.47)
13b	$C_{23}H_{27}N_3O_3S_2$	60.55 (60.37)	5.87 (5.95)	9.49 (9.18)
13c	$C_{22}H_{26}N_4O_3S_2$	57.31 (57.61)	5.79 (5.72)	11.90 (12.22)
13d	$C_{26}H_{25}N_3O_3S_2$•0.4 H_2O	62.57 (62.60)	4.93 (5.21)	8.46 (8.42)
13e	$C_{18}H_{12}ClFN_4O$	60.94 (60.54)	3.41 (3.30)	15.79 (15.69)
13f	$C_{19}H_{22}N_4O$	70.78 (70.68)	6.88 (6.64)	17.38 (17.28)
13g	$C_{17}H_{19}N_5O$	66.00 (65.88)	6.19 (6.18)	22.64 (22.37)
13h	$C_{26}H_{24}ClN_3O_3S_2$•0.1 TFA	58.55 (58.56)	4.52 (4.69)	7.82 (7.88)
14a	$C_{25}H_{23}N_3O_2S_2$•0.5 TFA	60.98 (61.09)	4.56 (4.65)	8.31 (8.28)
15a	$C_{24}H_{23}N_3O_3S_3$	57.92 (57.65)	4.66 (4.42)	8.44 (8.33)
15b	$C_{22}H_{19}N_3O_3S_3$•0.2 H_2O	55.94 (55.84)	3.83 (4.13)	8.97 (8.88)
15c	$C_{23}H_{21}N_3O_3S_3$•0.3 H_2O	56.16 (56.49)	4.07 (4.45)	8.69 (8.59)
15d	$C_{25}H_{25}N_3O_3S_3$•0.6 CH_2Cl_2	54.65 (54.67)	4.69 (4.64)	7.47 97.57)
15e	$C_{24}H_{25}N_3O_2S_3$•0.3 CH_2Cl_2•0.2 THF	57.58 (57.73)	5.24 (5.21)	8.03 (7.65)
16a	$C_{23}H_{21}N_3O_3S_3$•0.3 THF•0.1 H_2O	57.12 (57.32)	4.53 (4.69)	7.95 (8.29)
16b	$C_{24}H_{23}N_3O_4S_2$•0.6 CH_2Cl_2	55.41 (55.48)	4.30 (4.58)	7.98 (7.89)
16c	$C_{24}H_{24}N_4O_3S_2$	59.65 (59.98)	4.90 (5.03)	11.56 (11.66)
16d	$C_{19}H_{19}N_3O_3S_3$	52.29 (52.63)	4.06 (4.42)	9.73 (9.69)
16e	$C_{25}H_{23}N_3O_3S_2$•0.4 TFA	59.22 (59.23)	4.46 (4.51)	8.21 (8.03)
16f	$C_{24}H_{22}N_4O_3S_2$•0.1 H_2O	59.69 (60.01)	4.27 (4.66)	11.62 (11.66)
16g	$C_{23}H_{20}ClN_3O_3S_3$•0.25 TFA	51.99 (51.64)	3.32 (3.73)	7.68 (7.69)
16h	$C_{24}H_{23}N_3O_4S_3$•0.3 TFA	53.55 (53.93)	4.04 (4.29)	8.02 (7.67)
16i	$C_{24}H_{23}N_3O_3S_3$•0.3 TFA	55.82 (55.55)	4.46 (4.42)	8.03 (7.90)

16j	$C_{24}H_{23}N_3O_4S_3$•0.5 NH_4Ac	54.03 (54.38)	4.48 (4.84)	8.71 (8.88)
17a	$C_{26}H_{25}N_3O_4S_3$	57.78 (57.86)	4.41 (4.67)	7.60 (7.79)
17b	$C_{26}H_{25}N_3O_4S_3$•0.4 H_2O	57.16 (57.15)	4.41 (4.71	7.80 (7.68)
17c	$C_{25}H_{22}ClN_3O_3S_3$•0.4 H_2O	57.96 (58.21)	3.95 (4.17)	10.50 (10.44)