Experimental Properties of Test Compounds

Molecule ID	Structure	mp (°C) ^a	% Stability aq. buffer pH 7.4 b	Intrinsic solubility (mol/L) ^c	logP ^d	$log D_{7.4}{}^e$	PAMPA			
							Pe (cm/s) ^g	% retention ^h	$log_{Papp}{}^{i}$	pK _d ^j
SM25	O O O	107.8– 108.5	100.0	9.97E-4	2.67 ±0.01	-0.09	1.64E- 6	-3.05E-2	-5.79	4.49 ±0.04
SM26	O O O	76.2– 78.4	91.4	8.65E-2	1.04 ±0.01	-0.87	1.00E- 06	-5.00E-2	-6.00	4.91 ±0.01
SM27	O O O	ND§	100.0	8.71E–2	‡	1.56 [†]	6.79E– 6	-3.20E-2	-5.17	10.45 ±0.01
SM28	NH NH	135.3– 136.8	94.5	1.62E-3	‡	1.18 [†]	2.11E- 6	-1.20E-2	-5.68	>12
SM29	N S	71.4– 71.9	100.0	2.65E-2	1.61 ±0.03	1.61	8.44E– 6	0.157	-5.1	10.05 ±0.01
SM30	N.S.O.O.	105.8– 107.2	94.1	6.38E-4	‡	2.76†	7.06E- 6	0.260	-5.2	10.29 ±0.12
SM31	N S N	ND	93.7	3.47E-2	‡	1.96 [†]	1.02E- 5	5.89E-2	-4.99	11.02 ±0.01
SM32	S O O	115.2– 116.0	91.5	1.43E-3	‡	2.44†	1.46E- 05	0.439	-4.8	10.45 ±0.02
SM33	S O O	74.2– 75.8	92.8	1.10E-3	‡	2.96†	ND	ND	ND	>12
SM34	S O O	56.6– 58.9	93.5	2.20E-3	‡	2.83 [†]	1.14E- 5	0.373	-4.9	11.93 ±0.05
SM35	, o o	151.2– 154.2	100.0	2.20E-2	0.88 ±0.02	0.87	ND	ND	ND	9.87 ±0.01
SM36	NH N	135.3– 136.8	90.3	4.268E–2	‡	0.76 [†]	2.91E- 6	5.07E-2	-5.54	9.80 ±0.06
SM37	\$ 0 0 0 N S N	127.1– 127.8	93.4	1.06E-2	‡	1.45 [†]	3.41E- 6	7.13E-2	-5.47	10.33 ±0.02

SM38	O O O O	108.3– 108.7	100.0	4.32E-2	‡	1.03 [†]	3.66E- 06	-3.00E-3	-5.4	9.44 ±0.02
SM39	0, 0 N H	182.5– 184.2	98.3	1.06E-3	‡	1.89 [†]	ND	ND	ND	10.22 ±0.15
SM40	0 0 0 X-	100.2- 101.5	100.0	8.16E-3	1.83 ±0.05	1.82	4.43E- 6	0.105	-5.35	9.58 ±0.01
SM41	0-N S NH	158.0– 158.8	97.7	3.85E-2	0.58 ±0.02	-0.42	1.16E- 6	3.42E-2	-5.94	5.22 ±0.01
SM42	0-N NH	164.8– 166.0	95.5	2.17E-3	1.76 ±0.03	0.99	5.79E- 6	-4.81E-2	-5.24	6.62 ±0.02
SM43	O	152.5– 152.9	97.3	2.36E-2	0.85 ±0.01	0.42	2.87E- 6	0.131	-5.54	5.62 ±0.02
SM44	N=N NH	156.0– 157.5	93.5	1.05E-2	1.16 ±0.03	0.06	2.42E- 6	-4.07E-2	-5.62	6.34 ±0.01
SM45	N=N 0 0 0 NH NH	163.7– 164.5	93.3	3.62E-4	2.55 ±0.04	1.06	4.09E- 6	2.76E-4	-5.39	5.93 ±0.05
SM46	N=N O S N	158.5– 159.7	93.9	2.75E-3	1.72 ±0.01	0.69	3.77E- 6	-4.43E-2	-5.42	6.42 ±0.01

^a Melting point of crystalline material; ^b Test compound (%) remaining after 5 h of incubation at rt in aqueous buffer (pH 7.4) as determined by LC/MS analyses; ^c Intrinsic solubility determined from the general solubility equation (GSE) by using experimentally determined logP and mp values; ^d Log of the partition coefficient between *n*-octanol and water (unless otherwise noted, logP determinations were conducted via potentiometric titrations using a Sirius T3, Pion); ^c Log of the distribution coefficient between *n*-octanol and aqueous buffer at pH 7.4 (unless otherwise noted, logD_{7,4} determinations were conducted via potentiometric titrations using a Sirius T3, Pion); ^f Calculated values using ChemAxon³⁷; ^g Effective permeability (PAMPA assay run by Analiza); ^h Membrane retention; ⁱ Log of the apparent permeability coefficient (P_{app}); ^j p K_a values determined by potentiometric titrations using a Sirius T3, Pion (values in brackets are from ³⁰); [§] Test compound was an oil; [†] logD_{7,4} value determined via shake-flask assay (experiment run by Analiza); [‡] logP value is considered equal to the logD_{7,4} as these compounds exhibit p K_a values >9.4; ND = not determined.