SGC

The Structural Genomics Consortium is a public-private partnership that accelerates the discovery of new medicines through open access research.

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The SGC Frankfurt

Donated chemical probes were developed by pharmaceutical companies or leading academics and donated to the research community to stimulate research to explore target biology and its role in disease .

Learn more about DCPs and request the set free of charge:

DCP
Donated Chemical Probes
SGC

Donated chemical probes meet the following criteria:

- ✓ **Potency** (IC50 or KD) < 100 nM
- ✓ Selectivity within target family >30-fold
- ✓ Extensive off-targets **profiling outside target family**
- ✓ **Cellular on-target activity** < 1 µM (IC50 or EC50)
- ✓ 100-fold less potent **control compound**
- ✓ **No PAINS** elements

Target areas covered by the DCP set:

- ✓ Epigenetics
- ✓ GPCRs
- ✓ Ion Channels
- ✓ Kinases
- ✓ Other Enzymes
- ✓ Other Targets

Target	Probe	Cellular potency [nM]	Cellular usage recommendation [µM]
BRD2, BRD3, BRD4, BRDT (BD1)	GSK778	pIC_{50} = 7.3	≤ 1
BRD2, BRD3, BRD4, BRDT (BD1)	GSK789	IC_{50} = 125	≤ 10
BRD2, BRD3, BRD4, BRDT (BD2)	GSK046	pIC50 = 7.5	≤ 10
BRD2, BRD3, BRD4, BRDT (BD2)	GSK620	pIC50 = 7.2	≤ 10
BRD2, BRD3, BRD4, BRDT (BD2)	GSK973	pIC50 = 7.3	≤ 10
BRD7, BRD9	VZ185	DC_{50} = 4.5 / 1.76 (degrader)	0.3 (≤ 1)
EP300, CREBBP	A-485	IC_{50} = 150	0.8
KAT6A, KAT6B	WM-1119	IC_{50} = 250	1 -10
SMARCA2/4	FHT-2344	IC_{50} (SMARCA2/4) = 30.2/ 29.8	≤ 1
ADRA1D	(R)-9s	IC_{30} = 15	< 1
ADRA2B	BAY-6096	IC_{50}= 14	0.1
AVPR1A, AVPR2	BAY 1753011	IC_{50} = 3.6/ 1.7	0.1
CCR1	BI 639667	IC_{50}= 2.4	0.10
CCR1	BAY-3153	-	≤ 0.10
CHRM1	MSD-M1PAM	Inflection point = 136	< 1
CNR1	MRL-650	IC_{50} < 10	< 1
DRD4	ABT-724	2.2 < EC_{50} < 12.4	0.001 – 10
DRD4	UCSF924	0.2 < EC_{50} < 4.2	1
EDNRA	ABT-546	IC_{50} = 0.59	< 0.10
EDNRB	A-192621	IC_{50} = 0.8	< 0.30
F2R	BAY-386	IC_{50}= 10	< 0.10
FFAR1	BI-2081	EC_{50} = 3-5	~ 0.2
FFAR1	TP-051	EC_{50} = 25	≤ 1
GNRHR	BAY-784	IC_{50} = 21	< 1
GPR52	TP-024	EC_{50} = 93	1
GPR58	Ogerin	pEC_{50} 6.83	< 1
HRH4	JNJ-39758979	pA_2 = 7.9	≤ 10
KISS1R	KISS1-305	IC_{50} = 8.94	0.001 – 1
LHCGR	BAY-899	IC_{50} = 185	1
MRGPRX2	(R)-ZINC-3573	EC_{50} = 740	< 1
NPY1R	BIBO3304	IC_{50} = 0.38 (SK-M-NC cells)	0.1
P2RY14	PPTN	-	~ 0.10
PTAFR	WEB2086	IC_{50} = 170	0.3
PTGDR2	CRTH2 antagonist	IC_{50} = 3	0.1 – 1
PTGER2	PF-04418948	Kg = 5.4	< 0.30
PTGFR	BAY-6672	IC_{50} = 11	≤ 0.50
CFTR	A-1596586	EC_{50} = 28	< 1
Epithelial sodium channel	BI-8668	81 % inhibition	1
GRIN2A	TP-050	EC_{50} = 510	
P2RX4	BAY-1797	IC_{50} = 274	0.1 – 1
SLC9A1	BI-9627	IC_{50} = 31	< 5
TRPA1	A-079	IC_{50} = 51	1
TRPA1	BAY-390	IC_{50} = 82	0.10
TRPM8	PF-05105679	IC_{50} = 103	1

For ordering probes and controls please visit:
https://www.thesgc.org/frankfurt-requests

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ACVR1B, TGFBR1	TP-008	IC_{50} = 526 / 24	1 – 10
AKT1/2	Borussertib	IC_{50}(AKT1/2) = 21 / 68	1
AKT1/2	BAY1125976	IC_{50}(AKT1/2)= 2.84 / 10.7	< 1
BUB1	BAY 1816032	IC_{50} = 29	0.3
CIT	C3TD879	IC_{50} =51	≤ 2
CLK1/2/3/4	T3-CLK	IC_{50}(CLK1/2/4) = 3.49/ 16.6 / 1.98	< 0.1
CSNK1D, CSNK1E	JNJ-6204	IC_{50} (CSNK1D) = 72	≤ 1
DDR1/2, MAPK11, MAPK14	SR-302	IC_{50}(DDR1/2) = 23/18; IC_{50} (MAPK11/14) = 196/ 125	0.10
IKBKB	BI 605906	EC_{50} = 700 – 900	≤ 5
IRAK4	GNE-2256	IC_{50} = 3.3	1
LRRK2	MLi-2	IC_{50} = 3.5; EC_{50} = 1.22	< 1
MAPK14	FS-694	IC_{50} = 14.9	0.10 (< 1 µM)
MAPK14	Skepinone-L	IC_{50} = 13.6	1
MAPK14	SR-318	IC_{50}(MAPK14/11) = 3.7/ 10	< 0.10
MAPK1/3	ERKi	IC_{50}(MAPK1/3) = 280-850/ 6690	1
MAPK7	BAY-885	IC_{50} = 115	1
MET	BAY-474	IC_{50} = 2.9	0.001 – 1
PIP4K2A	BAY-091	EC_{50} = 1100	1-10
PRKAA1, RPS6KA1	BAY-3827	IC_{50}(PRKAA1/RPS6KA1) = 1.4 / 9.1	0.15
PTK2, PTK2B	PF-04554878	IC_{50} = 3	0.10
RIPK1	TP-030-1	IC_{50} = 18	0.10
RIPK1	TP-030-2	IC_{50} = 1.3	0.10
ROCK1/2	BAY-549	IC_{50} = 65	< 0.100
SGK3	SGK3-PROTAC1	65% degradation	0.3 (≤ 3)
SYK	MRL-SYKi	IC_{50} < 100 (cell. assay); IC_{50}< 300 (whole blood)	0.10
TBK1, IKBKE	BAY-985	IC_{50}(TBK1/IKBKE)= 312 / 1725	< 1
TIE1, TEK, DDR1/2	BAY-826	IC_{50}(TIE1/TEK/DDR1/DDR2) = 2.7 / 0.7 / 3 / 4.5	< 0.50
ALOX5AP	BI 665915	IC_{50} = 45	0.030 – 0.500
BCAT1/2	BAY-069	IC_{50}(BCAT1/2) = 358 / 874	1
CMA1	BI-1942	IC_{50} = 198	1
CYP11B2	MSD-CYP11B2	IC_{50} = 2.3	0.025 – 0.100
Complex I	BAY-179	IC_{50} = 33	0.10-1
DHODH	IPP/CNRS-A017	EC_{50}= 2.5	< 0.10
ELANE	BAY-678	Ki = 15	1-10
ELANE	BI-5524	IC_{50} = 1.2	0.1
ENPP2	BI-2545	IC_{50} = 29	1
EPHX2	BI-1935	IC_{50} < 1	< 0.001
FAAH	PF-04457845	Complete inhibition	0.2 – 1
FASN	BI 99179	IC_{50} = 180	1 – 10
FKBP5	SAFit2	IC_{50} = 195.5	≤ 5
FNTB	ABT-100	IC_{50} = 0.73	0.01 – 1000
GLS	A-446	IC_{50} = 11	0.10
γ secretase complex	GSM1	IC_{50} < 100	< 1

Target	Probe	Cellular potency [nM]	Cellular usage recommendation [µM]
γ secretase complex	MRK-560	> 1 (cellular potency)	< 0.100
HCV NS3	BI-1230	EC_{50} = 4.6 (Genotype 1a) EC_{50} < 1.8 (Genotype 1b)	< 0.10
HCV NS5B	BI 207127	EC_{50} = 23 (Genotype 1a) EC_{50} = 11 (Genotype 1b)	< 0.10
HIV NNRT	BI-2540	EC_{50} = 2.6	< 0.10
HSD17B13	BI-3231	IC_{50} = 11	1
MALT1	NVS-MALT1	IC_{50} = 3.4	1
METAP2	TP-004	Accumulation of NMet14-3-3γ = 15	0.2 – 1
METAP2	BAY-277	DC_{50} = 0.2 (degrader)	0.1
MGAT2	TP-020	IC_{50} = 160	1 – 10
MGLL	JNJ-42226314	IC_{50} = 1.13	≤ 10
MIF	BTZO-1	MEC2.0/1.5 = 820/ 16	0.8 – 1
MMP12	BAY-7598	-	< 10
MMP13	T-26c	IC_{50} < 100	0.1
MMP13	BI-4394	IC_{50} = 31	0.1
NUDT1	BAY-707	EC_{50} = 7.6	0.001 – 1
OGA	JNJ-65355394	IC_{50} = 3.9	≤ 10
OGA	TP-040	EC_{50} = 450	≤ 10
PDE9A	BAY-7081	EC_{50} = 995	1
PDE10A	THPP-1	IC_{50} = 49	~ 0.10
PDE10A	JNJ-42396302	2.3–fold increase in luciferase activity at 1 µM	≤ 10
SLC2A1	BAY-876	IC_{50} = 3.2	0.1 – 75
SMOX	JNJ-9350	IC_{50} = 1200 (CETSA)	≤ 10
SOS1	BAY-293	IC_{50} < 1000	0.02 – 1.1
UCHL1	8RK64	ABPP assay: Full inhibition at 3 µM	≤ 3
UGCG	TP-060	EC_{50} = 7.6	≤ 1
VNN1	PFI-653	IC_{50} = 9	≤ 1
BCL2	A-1211212	EC_{50} = 6	< 5
BCL2L1	A-1155463	IC_{50} = 0.55	< 5
BCL6	BI-3802	IC_{50} = 43 (degrader)	≤ 1
BCL6	BI-3812	IC_{50} = 40	≤ 1
BCL6	CCT369260	DC_{50} = 49 (degrader)	≤ 1
BCL6	TP-021	IC_{50} = 720	1 -10
ITGAL	BI-1950	3 < IC_{50} < 120	0.10
MCL1	JNJ-4355	AC_{50} = 12	≤ 10
NR3C1	BI 653048	IC_{50} = 23	1
RORC	JNJ-54119936	IC_{50} = 30	≤ 1
RXRA,RXRB,RXRG	JP3000	EC_{50} = 5/1.4/4	0.1 - 1
SLC16A3	MSC-4381	IC_{50} = 1	≤ 10