

**Table S7. GPCRome and Radioligand Binding Assay Results**

Select results of GPCRome screening and competition binding experiments of the selected receptors. Fold of Basal (FOB) and pKi values were extracted from a minimum of 3 independent assays in at least triplicate. Fold of Basal (FOB) and pKi displayed values are mean  $\pm$  SEM. N.D. - not determined.

DNA	FOB $\pm$ SEM	pKi $\pm$ SEM	Ki (nM)
ADORA1	3.7 $\pm$ 0.4	N.D.	N.D.
ADRA1A	2.4 $\pm$ 0.2	6.23 $\pm$ 0.09	584
ADRA1D	0.7 $\pm$ 0.2	6.12 $\pm$ 0.22	759
ADRA2A	23.9 $\pm$ 3	6.20 $\pm$ 0.21	631
ADRA2B	65 $\pm$ 5.6	6.54 $\pm$ 0.14	291
ADRA2C	41.5 $\pm$ 1.8	6.93 $\pm$ 0.19	118
ADRB1	1.5 $\pm$ 0.2	N.D.	N.D.
ADRB2	1.3 $\pm$ 0.2	N.D.	N.D.
ADRB3	0.6 $\pm$ 0.1	N.D.	N.D.
CHRM1	1.1 $\pm$ 0.2	N.D.	N.D.
CHRM2	0.7 $\pm$ 0.1	5.62 $\pm$ 0.21	2417
CHRM3	1.9 $\pm$ 0.2	N.D.	N.D.
CHRM4	0.5 $\pm$ 0.1	N.D.	N.D.
CHRM5	1.2 $\pm$ 0.1	N.D.	N.D.
CXCR6	2.6 $\pm$ 0.8	N.D.	N.D.
CXCR7	9.2 $\pm$ 1.7	N.D.	N.D.
DRD1	9.2 $\pm$ 1.4	6.41 $\pm$ 0.18	387
DRD2	77.9 $\pm$ 0.5	7.00 $\pm$ 0.09	101
DRD3	52.2 $\pm$ 5.5	8.66 $\pm$ 0.16	2
DRD4	17.0 $\pm$ 3.5	7.20 $\pm$ 0.1	63
DRD5	6.7 $\pm$ 0.2	6.35 $\pm$ 0.19	447
GPBA	3.5 $\pm$ 0.3	N.D.	N.D.
GPR44	4.2 $\pm$ 1.1	N.D.	N.D.
HRH1	1.1 $\pm$ 0.1	6.68 $\pm$ 0.22	211
HRH2	1.1 $\pm$ 0.2	N.D.	N.D.
HRH3	1.0 $\pm$ 0.1	N.D.	N.D.
HTR1A	26.9 $\pm$ 0.4	7.12 $\pm$ 0.15	76
HTR1B	2.5 $\pm$ 0.4	5.76 $\pm$ 0.17	1725
HTR1D	3.2 $\pm$ 0.8	6.73 $\pm$ 0.16	188
HTR1E	1.1 $\pm$ 0.1	N.D.	N.D.
HTR2A	2.6 $\pm$ 0.4	N.D.	N.D.
HTR2B	3.2 $\pm$ 0.2	6.20 $\pm$ 0.14	636
HTR4	1.3 $\pm$ 0.4	N.D.	N.D.
HTR5	2.7 $\pm$ 0.1	6.12 $\pm$ 0.26	759
HTR6	1.3 $\pm$ 0.1	N.D.	N.D.
HTR7	1.4 $\pm$ 0.1	6.88 $\pm$ 0.03	131
MC4R	3.0 $\pm$ 0.2	N.D.	N.D.
MTNR1B	3.2 $\pm$ 0.9	N.D.	N.D.
OPRK1	2.1 $\pm$ 0.2	6.11 $\pm$ 0.24	770
OPRM1	1.2 $\pm$ 0.2	5.52 $\pm$ 0.02	2997
SSTR1	10.0 $\pm$ 1.6	N.D.	N.D.
SSTR4	56.8 $\pm$ 6.4	N.D.	N.D.