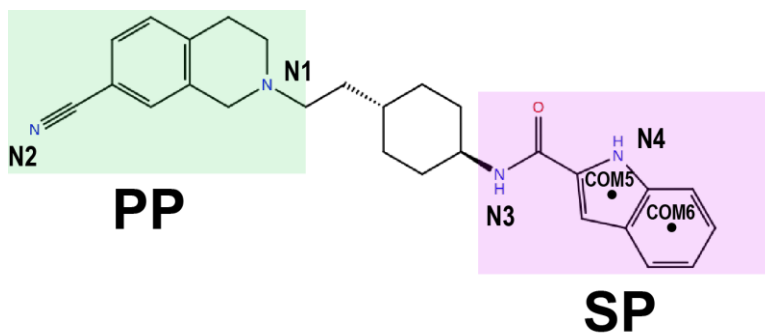


S1 Fig. Chemical structure of SB269652 and the input features for MSM analysis.

The tetrahydroisoquinoline (PP) and indole-2-carboxamide moiety (SP) of SB269652 are shown in green and pink respectively. COM5 and COM6 refer to the centers of mass of the 5- and 6-member rings of the SP, respectively. The input features for MSM analysis include 12 distances from the nitrogen atoms of SB269652 to the indicated receptor C β atoms, 2 intramolecular distances of SB269652, and the projections of the vectors from COM5 or COM6 to N4 along the axis perpendicular to membrane (see Methods).



Index	Atom name	SB269652 atom
1	Asp ^{3.32} C β	N1
2	Trp ^{7.39} C β	N1
3	Leu ^{3.33} C β	N2
4	Phe ^{5.38} C β	N2
5	Val ^{5.39} C β	N2
6	Ser ^{5.42} C β	N2
7	Ser ^{5.43} C β	N2
8	Ser ^{5.46} C β	N2
9	Val ^{2.61} C β	N3
10	Leu ^{2.64} C β	N3
11	Ser ^{7.36} C β	N3
12	Leu ^{2.64} C β	N4
13	SB269652 N4	N3
14	SB269652 N4	O
15	SB269652 N4	COM5
16	SB269652 N4	COM6