

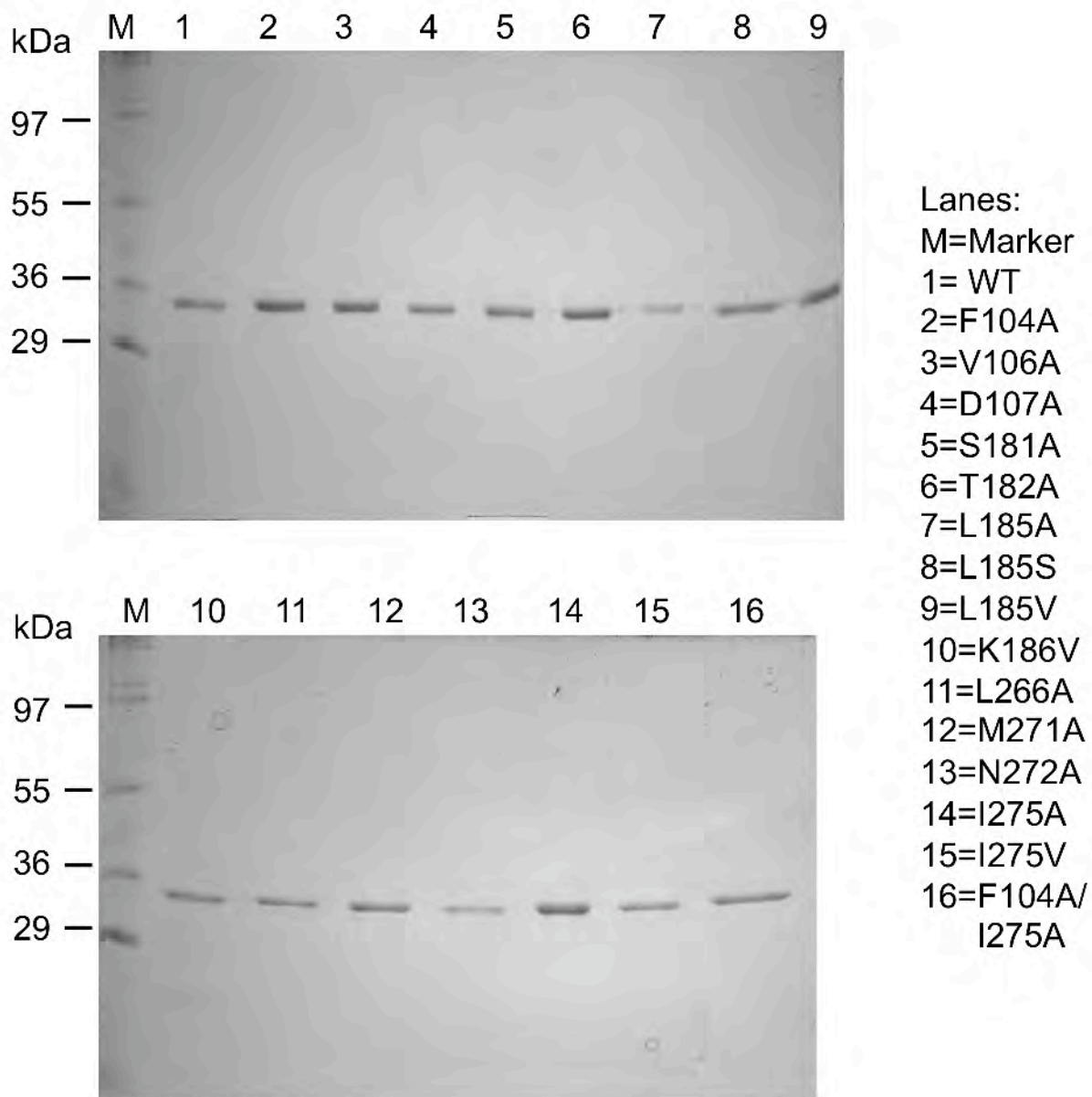
SUPPLEMENTAL TABLE 1
Oligonucleotides used for site directed mutagenesis

Mutation	Primer name	Sequence
F104A	16B1bracMutf12	5'-ggtgcaggtgcttcagttgatgctg-3'
	16B1bracMutr12	5'-cagcatcaactgaagcacctgcaacc-3'
V106A	16B1bracMutf2	5'-ggggttcaggtkyttcaghtgatgctgatcg -3'
	16B1bracMutr2	5'-cgatcagcatcadctgaarmacctgcaacccc-3'
D107A	16B1bracMutf22	5'-ggttttcagttgctgctgatcgtttaag-3'
	16B1bracMutr22	5'-ctaaaacgatcagcagcaactgaaaaacc-3'
S181A	16B1bracMutf8	5'-gttaatgtttcatcagccactggaagcctc-3'
	16B1bracMutr8	5'-gaggctccagtggtgatgaaacattaac-3'
T182A	16B1bracMutf7	5'-gttaatgtttcatcatccgctggaagcctc-3'
	16B1bracMutr7	5'-gaggctccagcggatgatgaaacattaac-3'
L185A	16B1bracMutf9	5'-tcatcatccactggaagckccaagtatgta-3'
	16B1bracMutr9	5'-tacatactggmgcttccagtggtgatgta-3'
S	16B1bracMutf18	5'-tcatcatccactggaagctccaagtatgta-3'
	16B1bracMutr18	5'-tacatactggagcttccagtggtgatgta-3'
V	16B1bracMutf17	5'-tcatcatccactggaagcgtcaagtatgta-3'
	16B1bracMutr17	5'-tacatactgacgcttccagtggtgatgta-3'
K186V	16B1bracMutf10	5'-tccactggaagcctcgygtatgtatcc-3'
	16B1bracMutr10	5'-ggatacatacrgaggcttccagtgga-3'
L266A	16B1bracMutf5	5'-gtgaattgtttrctctgbtkyggtaaaacag-3'
	16B1bracMutr5	5'-ctgtttaaccrmavcaggayaaacacaattcac-3'
M271A	16B1bracMutf13	5'-gttaaaacagaagcgaactacggcattgg-3'
	16B1bracMutr13	5'-ccaatgccgtagtctgcttctgttttaac-3'
N272A	16B1bracMutf14	5'-gttaaaacagaaatggcctacggcattgg-3'
	16B1bracMutr14	5'-ccaatgccgtaggccatttctgttttaac-3'
I275A	16B1bracMutf15	5'-atgaactacggcgtggaattatactgcc-3'
	16B1bracMutr15	5'-ggcagtataattccagcgccttagttcat-3'
V	16B1bracMutf16	5'-atgaactacggcgtggaattatactgcc-3'
	16B1bracMutr16	5'-ggcagtataattccaacgccgtagtcat-3'

SUPPLEMENTAL TABLE 2**Amount of protein present in enzyme assays and incubation times**

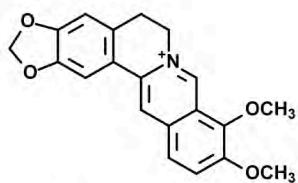
Version	Protein	Time
	<i>μg</i>	<i>min</i>
SalR-WT	0.5	0.5
F104A	0.6	0.5
V106A	0.6	0.5
D107A	0.6	2.0
S181A	0.6	0.5
T182A	1.5	0.75
L185A	2.2	6.0
S	0.8	1.0
V	1.0	0.5
K186V	1.0	0.5
L266A	1.0	1.5
M271A	3.8	10
N272A	3.2	10
I275A	0.6	0.5
V	0.7	0.5
F104A/I275A	2.4	1.0

Supplemental Figure 1

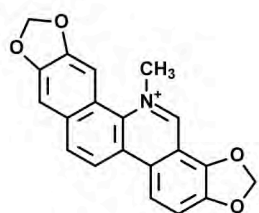


SUPPLEMENTAL FIGURE 1. **SDS-PAGE of purified SalR mutants.** About 1 μ g of Cobalt affinity-purified His-tagged SalR mutants were separated on 12 % SDS-polyacrylamide gels and stained with Coomassie blue.

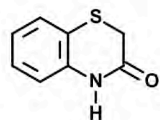
Supplemental Figure 2



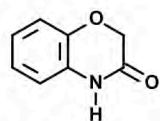
Berberine



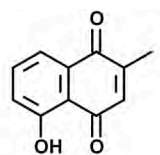
Sanguinarine



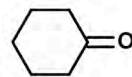
2H-1,4-Benzothiazine-3(4H)-one



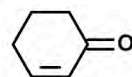
2H-1,4-Benzoxazine-3(4H)-one



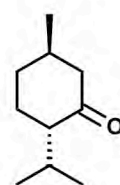
Plumbagine



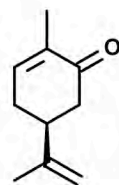
Cyclohexanone



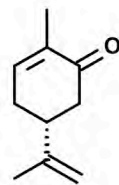
2-Cyclohexen-1-one



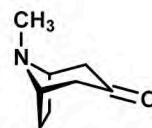
(-)-Menthone



(+)-Carvone



(-)-Carvone



Tropinone

SUPPLEMENTAL FIGURE 2. **Substrates tested for enzyme specificity.**