

Supplemental Table 1. A, Relative abundance of major latex alkaloids determined by HPLC in eight opium poppy cultivars. **B**, Relative abundance of scoulerine 9-*O*-methyltransferase (SOMT) gene transcripts compared with those of previously characterized *O*-methyltransferases involved in benzyloquinoline alkaloid biosynthesis in eight opium poppy cultivars. All values are the mean of three independent experiments.

A Relative abundance of major latex alkaloids (% maximum)

	Marianne	Natasha	Roxanne	Veronica	Deborah	40	T	Przemko
Noscapine	23.6	100	41.8	61.8	3.6	0	0	0
Narcotoline	100	5.8	5.8	2.9	0	0	0	0
Papaverine	0	0	80	100	0	0	0	0
Morphine	98.0	54.9	100	92.1	76.4	86.2	0	62.7
Codeine	2.9	5.8	8.8	5.8	35.2	20.5	0	100
Oripavine	0	0	3.6	0	5.4	5.4	100	0
Thebaine	2.2	26.6	22.2	8.8	95.5	100	95.5	0
Reticuline	2.9	2.9	2.9	5.8	2.9	2.9	5.8	100

B Relative abundance of *O*-methyltransferase gene transcripts

	Marianne	Natasha	Roxanne	Veronica	Deborah	40	T	Przemko
PsSOMT1	47.8	26.0	69.56	100	0	0	0	0
PsSOMT2	34.77	22.8	100	71.7	0	0	0	0
PsSOMT3	22.3	41.4	100	45.7	0	0	0	0
Ps6OMT	23.5	35.0	100	71.9	23.5	67.5	33.7	45.8
PsN7OMT	2.1	41.3	50	71.7	100	36.9	47.8	26.0
PsR7OMT	18.0	84.2	100	34.0	16.2	26.3	21.0	37.7
Ps4'OMT1	6.3	28.8	100	60.3	50.4	71.1	67.5	53.1
Ps4'OMT2	35.7	27.5	77.1	78.8	61.6	65.9	80.1	100