

Table S2. Sixteen alkaloids were tentatively annotated in all the white lupin seeds extracts after the UHPLC–HRMS (Orbitrap) analysis, using a custom library based on the genus *Lupinus* and applying tolerance of 5 *m/z*.

Alkaloids and derivatives Putative annotation	Molecular Formula	Monoisotopic Mass (Da) Experimental	tR* (min)	Mass Difference (ppm)
(+)-Epilupinine N-Oxide	C ₁₀ H ₁₉ NO ₂	185.1416	1.82	3.08
(-)-N-methyl-Angustifoline	C ₁₅ H ₂₄ N ₂ O	248.1887	1.86	1.55
Lupinine	C ₁₀ H ₁₉ NO	169.1467	1.75	3.45
Oxymatrine	C ₁₅ H ₂₄ N ₂ O ₂	264.1836	2.85	1.4
Albine	C ₁₄ H ₂₀ N ₂ O	232.1576	4.26	2.52
4ξ-O-Angeloyl-4-Hydroxylupanine	C ₂₀ H ₃₀ N ₂ O ₃	346.2255	9.4	1.17
(+)- Epilupinine	C ₁₀ H ₁₉ NO	169.1467	2.22	3.45
(+)-Angustifoline	C ₁₄ H ₂₂ N ₂ O	234.1732	6.64	2.29
(R)-Ammodendrine	C ₁₂ H ₂₀ N ₂ O	208.1576	7.36	2.81
Sparteine	C ₁₅ H ₂₆ N ₂	234.2096	3.87	2.35
Anagryne	C ₁₅ H ₂₀ N ₂ O	244.1576	1.76	2.4
13α-Tigloyloxy Multiflorine	C ₂₀ H ₂₈ N ₂ O ₃	344.21	9.50	1.61
7-Hydroxysparteine; 6-Epimer	C ₁₅ H ₂₆ N ₂ O	250.2043	1.76	1.34
O-2-Methylbutanoyl 13-Hydroxylupanine	C ₂₀ H ₃₂ N ₂ O ₃	348.2412	9.71	1.31
Benzoyl 13-Hydroxylupanine	C ₂₂ H ₂₈ N ₂ O ₃	368.2099	10.06	1.24
Alkaloid LV-2	C ₁₅ H ₂₄ N ₂ O ₂	264.1837	1.92	1.78