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ALKALOIDS OF ANATOLIAN *THALICTRUM SULTANABADENSE*

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Thalictrum sultanabadense Stapf (Ranunculaceae) is a small, perennial plant found growing near the town of Kemaliye (Erzincan) in Eastern Turkey. The occurrence of thalbadensine, hernandezine, hernandezine *N*-oxide, and thalidezine in *T. sultanabadense* growing in the USSR has been reported (1, 2). Here, we report on the isolation of thalbadensine, hernandezine, thalictine, thalifoline, and two more alkaloids—for which uv and tlc comparison with authentic samples strongly suggest their identification as berberine and magnoflorine—from the roots and above ground parts of *T. sultanabadense* of Anatolian origin (Table 1). The last four alkaloids are reported to be isolated for the first time from this species.

TABLE 1. Alkaloids Isolated from Anatolian *Thalictrum sultanabadense*

Alkaloid	Above ground parts	Roots	Identified by
Thalbadensine . .	+[a]	+	uv, ^{1}H nmr, ms
Thalictine	+	+	uv, ^{1}H nmr, ms
Thalifoline	+	+	uv, ^{1}H nmr, ms, tlc comparison
Hernandezine . . .	+	−	uv, ^{1}H nmr, ms
Berberine	−	+	uv, tlc comparison
Magnoflorine . . .	+	+	uv, tlc comparison

[a]+=detected, −=not detected.

EXPERIMENTAL

PLANT MATERIAL.—Whole plants were collected from Sandık Village near Kemaliye (Erzincan) in Eastern Turkey in June 1983. A voucher specimen is kept at the Herbarium of the Faculty of Pharmacy, Anadolu University (Turkey).

EXTRACTION AND ISOLATION.—Dried roots (170 g) and above ground parts (245 g) were separately extracted and worked up by a previously reported procedure (3). The alkaloids were isolated and purified by column and thin layer chromatographic techniques. Details of the isolation and identification of the alkaloids are available on request to the first author.

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