

Distribution: Khovs., Khent., Khang., Mong-Dag., Khyang., Khovd, Mong. Alt., Dund. Khalkh, Ikh n., Gobi-Alt., Zyyngar.

Habitat: Meadows, meadowy slopes, larch forests and their fringes in forest-steppe and alpine belts [2–4].

Part used: Rhizome

Traditional Uses: The taste is sour and the potency is easy and cool. It is used for the following: treatment of wounds, diarrhea, fever from pneumonia, and large and small intestine diseases. It also relieves cough and promotes expectoration. It is an ingredient of the following traditional prescriptions: Bragshun-9, Gunbrum-7, Dali-16, Donshin-4, Zobo-25, Lotsadgungsel, Martan-11, Srol-4, Tiche-7, Jugan-25, and Indra-4 [4–7].

Microscopic characteristics: Rhizome epidermis single-layered. Many layers of parenchyma are present on the lower surface of the epidermis. Centre of the stem are seen spongy parenchyma. Upper spongy parenchyma are seen as a collateral vascular bundle. Vascular bundle eight, arranged in a ring [8].

Chemical constituents: Rhizome contains 8–10% tannins. Herb contains ascorbic acid, carotene [9], phenol carboxylic acids: caffeic and chlorogenic acids [10], flavonoids: kaempferol, quercetin [11].

Qualitative and quantitative standards: Loss on drying, 18.0%. Ash, not more than 5.0%. Matter, not more than 1.5% [12].

References:

1. Olziikhutag, N. (Ed). (1983). Latin-Mongolian-Russian Dictionary of Vascular Plants of Mongolia (p. 117). Ulaanbaatar: Press of Mongolian Academy of Sciences.
2. Malishev, L.I. and Peshkova, G.A. (1979). Flora of Central Siberia (Vol. 2, p. 291). Novosibirsk: Science Printing.
3. Sanchir, Ch., Batkhuu, J., Boldsaikhan, B., and Komatsu, K. (2003). Illustrated Guide of Mongolian Useful Plants. (Vol. 1, p. 180). Ulaanbaatar: Admon Printing.
4. Ligaa, U., Davaasuren, B., and Ninjil, N. (2005). Medicinal Plants of Mongolia Used in Western and Eastern Medicine. (p. 325). Ulaanbaatar: JCK Printing.
5. Yuthok Yonten Gonpo., Four Medical Tantras, VIII-IXth century.
6. Danzanpuntsag., Crystal rosary. XVIIIth century.
7. Boldsaikhan, B. (2004). Encyclopedia of Mongolian Medicinal Plants (p. 117). Ulaanbaatar: Mongolian University of Science and Technology.
8. Bayasgalan, B. (2001). On the quality evaluation and standardization of some Mongolian traditional drugs. (p. 26, 72). A thesis submitted for the degree of Doctor of Philosophy in Pharmacy. Ulaanbaatar: Medical University of Mongolia.
9. Fedorov, A.A. *et al.* (1985). Plants Review of USSR: Family Magnoliaceae-Limoniaceae. (p. 255). Leningrad: Science Printing, Leningrad.
10. Hörhammer, L. and Scherm, A. (1955). Über das Vorkommen zyklischer Pflanzensäuren bei einigen Polygonaceen und Betulaceen. *Arch. Pharm.* 288, 441.
11. Sobolevskaya, K.A. and Visochina, Sh.I. (1965). On the flavonoid investigation of some *Polygonum* L. species in Altai. *Rastit. Resur.* 1, 367.
12. Badgaa, D. (1974). Root of *Polygonum viviparum*. Mongolian National Standard 2125–74.