

Specification : Sweet Flag Extract/ สารสกัดว่านน้ำ (Manose RM-0109)

(Application : An active ingredient for anti-hypertensive food supplements/  
สารสำคัญในผลิตภัณฑ์เสริมอาหารสำหรับโรคความดันโลหิตสูง)

1. Name of the raw material : Sweet Flag Extract
2. Active components : Phenolic compounds, glycosides, sterols, triterpenoids, and asarone<sup>(1)</sup>
3. Common and scientific name/ Family of the plant : Sweet Flag (*Acorus calamus* L.)/ ARACEAE
4. Physical appearance : Light-brownish solid with herbal odor
5. pH : 5
6. Standardization : HPLC fingerprint using asarone as a marker
7. Stability of active constituent : Asarone is stable at room temperature and light protection condition
8. Solubility : Soluble in water and ethanol
9. Microbial contamination : No pathogenic microorganism with less than 1,000 cfu/g of the total plate count of bacteria, yeast and fungi which is conformed to the Thai FDA regulation
10. Biological activities : - Anti-hypertensive<sup>(1)</sup>, anti-diabetic<sup>(1)</sup>, anti-oxidant<sup>(1)</sup>, anti-inflammatory<sup>(1)</sup>, analgesic<sup>(1)</sup> and anti-microbial<sup>(1)</sup> activity
11. Animal / human performance test : Anti-hypertensive activity in animals<sup>(2)</sup>  
- Anti-hypertensive activity of the extract (% relative activity = 93.92 %) (% relative activity of the standard drug, prazosin = 45.43 %)
12. Safety : No skin irritation in human volunteers / LD<sub>50</sub> > 5 g/kg BW in rats

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13. Pharmaceutical, food supplement or cosmetic applications : Anti-hypertensive, anti-diabetic, anti-oxidant, anti-inflammatory, analgesic and anti-microbial in food supplements
14. Recommended concentrations in the product : 0.1-1.0% w/w in food supplements
15. Storage : Keep in tight and light protection container at room temperature
16. Precautions : None
17. Cost per kg : Please request

#### References

1. Dukupati S. (2023) A review on *Acorus calamus* Linn. **Journal of Clinical Pharmacology and Therapeutics**. 4: Article 1047.
2. Singh S, Yadav M. (2022) A critical review of Vacha (*Acorus calamus* L.) in ayurvedic and modern context. **World Journal of Pharmaceutical and Medical Research**. 8(3): 182-187.
3. Manose In-house Project “The Development of Extract from Thai Medicinal Plants for Anti-hypertensive Food Supplements”, **Manose Health and Beauty Research Center** (www.manose.co), unpublished, 2013.