

PRODUCT INFORMATION



Timosaponin BII

Item No. 30644

CAS Registry No.: 136656-07-0

Formal Name: (3 β ,5 β ,22 α ,25S)-26-(β -D-glucopyranosyloxy)-
22-hydroxyfurostan-3-yl 2-O- β -D-
glucopyranosyl- β -D-galactopyranoside

Synonym: TB-II

MF: C₄₅H₇₆O₁₉

FW: 921.1

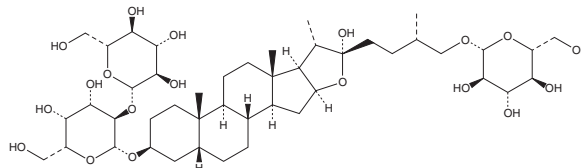
Purity: $\geq 98\%$

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥ 4 years

Item Origin: Plant/*Anemarrhena asphodeloides*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Timosaponin BII (TB-II) is supplied as a crystalline solid. A stock solution may be made by dissolving the TB-II in the solvent of choice, which should be purged with an inert gas. TB-II is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of TB-II in these solvents is approximately 30 mg/ml. TB-II is also slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of TB-II can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of TB-II in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

TB-II is a steroidal saponin that has been found in *Anemarrhena* and has diverse biological activities.¹⁻³ TB-II (20-100 μ M) inhibits superoxide generation induced by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014), N-formyl-Met-Leu-Phe (fMLP; Item No. 21495), or arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) in isolated human neutrophils.¹ It reduces cell death induced by enterovirus 71 (EV71) in Vero cells (IC₅₀ = 4.3 μ M).² TB-II (20, 40, and 80 mg/ml) inhibits ADP-induced platelet aggregation in isolated rabbit platelet-rich plasma (PRP).³ TB-II (3 and 6 mg/kg) increases activated partial thromboplastin time (APTT) and decreases the wet weight and length of thrombi in Chandler's ex vivo thrombosis model.

References

1. Zhang, J., Zhang, M., Sugahara, K., et al. Effect of steroidal saponins of *Anemarrhena rhizoma* on superoxide generation in human neutrophils. *Biochem. Biophys. Res. Commun.* **259**(3), 636-639 (1999).
2. Liu, M., Tao, L., Chau, S.L., et al. Folding fan mode counter-current chromatography offers fast blind screening for drug discovery. Case study: Finding anti-enterovirus 71 agents from *Anemarrhena asphodeloides*. *J. Chromatogr. A* **1368**, 116-124 (2014).
3. Lu, W.-Q., Qiu, Y., Li, T.-J., et al. Antiplatelet and antithrombotic activities of timosaponin B-II, an extract of *Anemarrhena asphodeloides*. *Clin. Exp. Pharmacol. Physiol.* **38**(7), 430-434 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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