

# Produktinformation



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## SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic in



# **PRODUCT INFORMATION**



## **Uric Acid (sodium salt)**

Item No. 16219

**CAS Registry No.:** 1198-77-2

7,9-dihydro-1H-purine-2,6,8(3H)-Formal Name:

trione, monosodium salt

MF:  $C_5H_3N_4O_3 \bullet Na$ 

FW: 190.1

Supplied as: A crystalline solid

-20°C Storage: Stability: ≥2 years

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

## **Laboratory Procedures**

Uric acid (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the uric acid (sodium salt) in the solvent of choice. Uric acid (sodium salt) is soluble at 25 mg/ml in 1 M NaOH. We do not recommend storing the aqueous solution for more than one day.

#### Description

Uric acid is a ubiquitous end product of purine metabolism in humans that is mainly excreted in urine, whereas in other mammals it is further metabolized to allantoin by uricase. The final two steps in its production are catalyzed by xanthine oxidase, which generates superoxide.<sup>2</sup> Uric acid acts as a potent peroxynitrite scavenger and antioxidant.<sup>1-3</sup> However, high levels of serum uric acid (>120 μg/ml), termed hyperuricemia, are associated with gout, kidney stones, metabolic syndrome, hypertension, renal disease, and cardiovascular disease. 1,4-7 Uric acid in the form of monosodium urate crystals has been proposed to trigger interleukin- $1\beta$ -mediated inflammation by activating the NOD-like receptor protein 3 inflammasome.<sup>8</sup>

#### References

- 1. Ilvarez-Lario, B. and Macarrón-Vicente, J. Is there anything good in uric acid? Q. J. Med. 104(12), 1015-1024 (2011)
- 2. Glantzounis, G.K., Tsimoyiannis, E.C., Kappas, A.M., et al. Uric acid and oxidative stress. Curr. Pharm. Des. 11(32), 4145-4151 (2005).
- 3. Hooper, D.C., Spitsin, S., Kean, R.B., et al. Uric acid, a natural scavenger of peroxynitrite, in experimental allergic encephalomyelitis and multiple sclerosis. Proc. Natl. Acad. Sci. USA 95, 675-680 (1998).
- Watanabe, S., Kang, D.-H., Feng, L., et al. Uric acid, hominoid evolution, and the pathogenesis of salt-sensitivity. Hypertension 40, 355-360 (2002).
- Dehghan, A., van Hoek, M., Sijbrands, E.J.G., et al. High serum uric acid as a novel risk factor for type 2 diabetes. Diabetes Care 31(2), 361-362 (2008).
- Heinig, M. and Johnson, R.J. Role of uric acid in hypertension, renal disease, and metabolic syndrome. Cleve. Clin. J. Med. 73(12), 1059-1064 (2006).
- 7. Nakagawa, T., Hu, H., Zharikov, S., et al. A causal role for uric acid in fructose-induced metabolic syndrome. Am. J. Physiol. Renal Physiol. 290, F625-F631 (2006).
- Ghaemi-Oskouie, F. and Shi, Y. The role of uric acid as an endogenous danger signal in immunity and inflammation. Curr. Rheumatol. Rep. 13(2), 160-166 (2011).

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

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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### **CAYMAN CHEMICAL**

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.**CAYMANCHEM**.COM