# PRODUCT INFORMATION



## **Ellagic Acid**

Item No. 10569

CAS Registry No.: 476-66-4

Formal Name: 2,3,7,8-tetrahydroxy-[1]benzopyrano

[5,4,3-cde][1]benzopyran-5,10-dione

Synonyms: Gallogen, Lagistase, TBBD

MF:  $C_{14}H_6O_8$ 302.2 FW: ≥95% **Purity:** 

 $\lambda_{max}$ : 256, 365 nm UV/Vis.: Supplied as: A crystalline solid

Storage: -20°C Stability: ≥4 years

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

## **Laboratory Procedures**

Ellagic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the ellagic Acid in the solvent of choice, which should be purged with an inert gas. Ellagic acid is soluble in the organic solvent DMSO at a concentration of approximately 0.14 mg/ml.

#### Description

Ellagic acid is a polyphenolic antioxidant that is abundant in many fruits, vegetables, plant bark, and peels. It has anti-carcinogenic, anti-mutagenic, anti-inflammatory, and organ-preserving properties, presumably related to its ability to alter cytochrome P450 activity and improve metabolism and clearance of xenobiotics, as well as alter immune function. 1-3 Ellagic acid also blocks methylation of arginine 17 of histone 3 (H3R17) by coactivator-associated arginine methyltransferase 1 (CARM1) without significantly altering histone acetylase or DNA methyltransferase activity.4-6

### References

- 1. Allen, C.T., Peden-Adams, M.M., EuDaly, J., et al. Subchronic exposure to ellagic acid impairs cytotoxic T-cell function and suppresses humoral immunity in mice. Immunopharmacol. Immunotoxicol. 25(3), 409-422 (2003).
- 2. Heber, D. Multitargeted therapy of cancer by ellagitannins. Cancer Lett. 269(2), 262-268 (2008).
- Girish, C. and Pradhan, S.C. Drug development for liver diseases: Focus on picroliv, ellagic acid and curcumin. Fundam. Clin. Pharmacol. 22(6), 623-632 (2008).
- Selvi, B.R., Batta, K., Kishore, A.H., et al. Identification of a novel inhibitor of coactivator-associated arginine methyltransferase 1 (CARM1)-mediated methylation of histone H3 Arg-17. J. Biol. Chem. **285(10)**, 7143-7152 (2010).
- 5. Paluszczak, J., Krajka-Kuzniak, V., and Baer-Dubowska, W. The effect of dietary polyphenols on the epigenetic regulation of gene expression in MCF7 breast cancer cells. Toxicol. Lett. 192(2), 119-125
- 6. Lea, M.A., Ibeh, C., Han, L., et al. Inhibition of growth and induction of differentiation markers by polyphenolic molecules and histone deacetylase inhibitors in colon cancer cells. Anticancer Res. 30(2), 311-318 (2010).

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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