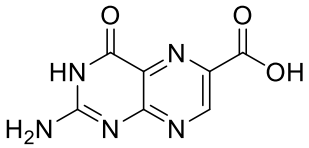
bioaustralis
fine chemicals

PRODUCT DATA SHEET

Pterine-6-carboxylic acid

Code No.: **BIA-P2525**

Pack sizes: **1 mg, 5 mg**



Synonyms : 2-Amino-4-hydroxypterin-6-carboxylic acid, 2-Amino-6-carboxy-4-hydroxypteridine, 6-Carboxypterin, NSC 96893, Pterin-6-carboxylic acid

Specifications

CAS #	:	**948-60-7**
Molecular Formula	:	**$C_7H_5N_5O_3$**
Molecular Weight	:	**207.15**
Source	:	**Synthetic**
Appearance	:	**White solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in methanol or DMSO**

Application Notes

Pterine-6-carboxylic acid is a fluorescent endogenous metabolite from various sources including human blood, sheep pineal glands, various amphibians, fish and soybeans. Pterine-6-carboxylic acid is a biomarker for tetrahydrobiopterin deficiency and for various tumors. Pterine-6-carboxylic acid is a photodegradation product of folate and augments ROS production and phototoxicity of UVA towards human cell lines (epidermal carcinoma A431, primary melanoma WM115 and keratinocyte HaCaT).

References

1. The pigments in the dorsal skin of frogs. Suga T. & Munesada K. J Nat Prod 1988, 51, 713.
2. 7-Substituted pterins. A new class of mammalian pteridines. Curtius H-C. et al. J Biol Chem. 1990, 265, 3923.
3. Metabolic profiling of pteridines for determination of potential biomarkers in cancer diseases. Koslinski P. et al. Electrophoresis 2011, 32, 2044.
4. Oxidative stress in vitiligo: photo-oxidation of pterins produces H(2)O(2) and pterin-6-carboxylic acid. Hartmut R. et al. Biochem Biophys Res Commun. 2002, 292, 805.
5. Photodegradation of folate sensitized by riboflavin. Scurachio R.S. et al. Photochem Photobiol. 2011, 87, 840.
6. Folic acid and its photoproducts, 6-formylpterin and pterin-6-carboxylic acid, as generators of reactive oxygen species in skin cells during UVA exposure. Juzeniene A. et al. J Photochem Photobiol. B 2016, 155, 116.

Updated: 11 June 2021

Building C, 28-54 Percival Road, Smithfield, NSW 2164, AUSTRALIA

Tel: 61 2 9757 4515 Fax: 61 2 9757 2586 Web: www.bioaustralis.com Email: info@bioaustralis.com