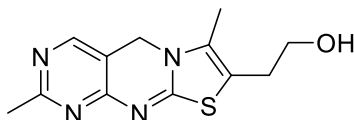


Thiochrome

Code No.: **BIA-T2477**

Pack sizes: **0.1 mg, 0.5 mg**



Synonyms : NSC 56339

Specifications

CAS #	: 92-35-3
Molecular Formula	: C₁₂H₁₄N₄OS
Molecular Weight	: 262.33
Source	: Synthetic
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in methanol or DMSO

Application Notes

Thiochrome is a fluorescent yellow tricyclic alcohol found in yeast formed by oxidation of thiamine. Thiochrome is used analytically to determine thiamine levels. Thiochrome binds allosterically to muscarinic receptors and selectively enhances the affinity of M4 muscarinic receptor for acetylcholine 3- to 5-fold. Thiochrome has antioxidant properties.

References

1. Flow-injection solvent extraction without phase separation: Fluorimetric determination of thiamine by the thiochrome method. Alonso A. et al. J Pharm Biomed Anal. 2006, 42, 171.
2. Thiochrome enhances acetylcholine affinity at muscarinic M4 receptors: receptor subtype selectivity via cooperativity rather than affinity. Lazareno S. et al. Molec Pharmacol. 2004, 65, 257.
3. Antioxidant properties of thiamine and its hydrophobic metabolites. Stsiapura, V. I.; Stepuro I.I. Handbook of free radicals: formation, types and effects 2010, 319. Ed. Kozyrev D. and Slutsky V.