

CERTIFICATE of ANALYSIS

PRODUCT:

Monastrol, Kinesin Inhibitor

[4-(3-Hydroxyphenyl)-6-methyl-2-thioxo-1,2,3,4-tetrahydro-4*H*-pyrimidin-5-carboxylic acid ethyl ester]
C₁₄H₁₆N₂O₃S, M.W. 292.4, CAS# [254753-54-3]

PRODUCT NUMBER:

M-1116

LOT NUMBER:

E1402

APPEARANCE:

White to light yellow or beige solid

PURITY (TLC):

> 98%

NMR:

Conforms

SOLUBILITY:

Soluble in Ethanol @ 25 mg/ml or DMSO @ 25 mg/ml

OTHER DATA:

Potent, cell-permeable, small molecule inhibitor of mitosis. Monostrol-arrested cells are characterized by monopolar spindles. Does not affect other motor proteins or tubulin. Specifically inhibits the mitotic molecular motor kinesin Eg5, a motor protein required for spindle formation (IC₅₀ = 14 μM). Mimics the effect of amyloid β on long term potentiation in a cellular model of learning and memory. Enhances regeneration of adult axons.

STORAGE:

Keep cool and dry at -20°C. Stock solutions are stable for up to 1 month at -20°C. **PROTECT FROM LIGHT!**

CAUTION: For research use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved.

Verified: KS