

## Monastrol, Kinesin Eg5 and mitosis inhibitor

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Catalog	Unit
TBI2629-5MG	5 mg
TBI2629-25MG	25 mg

### Product Details

**Formal Name:** 1,2,3,4-tetrahydro-4-(3-hydroxyphenyl)-6-methyl-2-thioxo-5-pyrimidinecarboxylic acid, ethyl ester

**Molecular Formula:** C<sub>14</sub>H<sub>16</sub>N<sub>2</sub>O<sub>3</sub>S

**Formula Weight:** 292.35

**CAS Number:** 254753-54-3

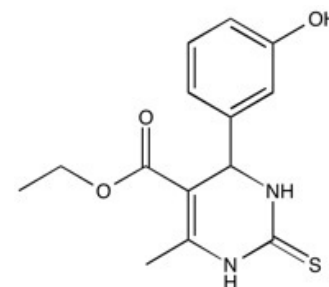
**Purity:** >98%

**Formulation:** powder

**Solubility:** Soluble in DMSO (up to 25 mg/ml) or in Ethanol (up to 25 mg/ml)

**Storage:** -20°C

**Stability:** ≥ 2 years.



### Applications

Kinesin Eg5 and mitosis inhibitor

### Functions

Potent, cell-permeable, small molecule inhibitor of mitosis. Monastrol-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 (IC<sub>50</sub> = 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.

### Application Procedures

First dissolved in DMSO (up to 25 mg/ml) or in Ethanol (up to 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

**For research use only.**