

PRODUCT DATA SHEET



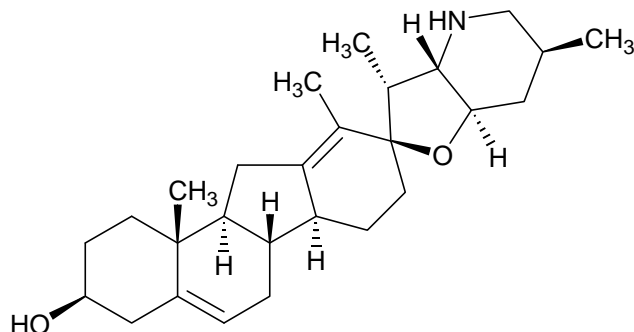
PRODUCT: Cyclopamine

CAS NO: 4449-51-8

CATALOG NO.: GR-334

LOT NO.: temp

STRUCTURE:



PHYSICAL APPEARANCE: White solid

MOLECULAR FORMULA: $C_{27}H_{41}NO_2$

MOLECULAR WEIGHT: 411.6

PURITY: 98% (TLC: 10% Methanol/methylene chloride; $R_f = 0.20$)

SOLUBILITY: Soluble in ethanol (5 mg/mL warm), DMSO (4 mg/ml) and DMF (10 mg/mL)

STORAGE: Store, as supplied, at $-20^{\circ}C$ for up to 1 year. Store solutions at $-20^{\circ}C$ for up to 3 months.

APPLICATION NOTES: Cyclopamine is a naturally occurring steroidal alkaloid that causes cyclopia by blocking sonic hedgehog signaling.¹ It specifically inhibits the hedgehog (Hh) pathway by interaction with the Hh signaling protein Smoothened.² Cyclopamine blocks the oncogenic effects of mutations of *Ptch* in fibroblasts³ and inhibits the growth of cells lacking *Ptch* function⁴. It arrested cell cycle at G0/G1 and induced apoptosis in several small-cell lung cancer cell lines at $5 \mu M$.⁵

Warning: Cyclopamine is a known teratogen! Women who are or may be pregnant should be careful to avoid exposure to this substance.

REFERENCES:

1. J.P.Incardona *et al. Dev.Biol.* 2000 **224** 440
2. J.K.Chen *et al. Proc.Natl.Acad.Sci.USA* 2002 **99** 14071
3. J.Taipale *et al. Nature* 2000 **406** 1005
4. D.M.Berkman *et al. Science* 2002 **297** 1559
5. D.N.Watkins *et al. Nature* 2003 **422** 313

The pharmacological and toxicological properties of this product have not been fully investigated. Exercise caution in use and handling appropriate for teratogenic compounds. This product must not be used in humans.