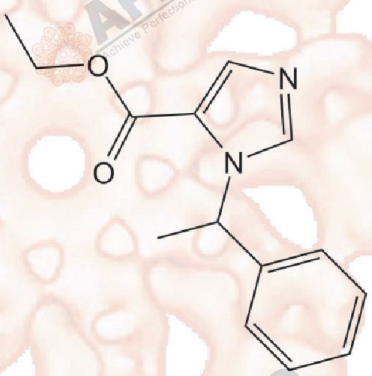
Product Data Sheet

Etomidate



Cat. No.: A1958
CAS No.: 33125-97-2
Formula: C14H16N2O2
M.Wt: 244.29
Synonyms:
Target: Neuroscience
Pathway: GABA Receptor
Storage: Store at -20°C

Solvent & Solubility

insoluble in H2O; ⩾12.212 mg/mL in DMSO; ⩾16.87 mg/mL in EtOH

In Vitro — Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	4.0935 mL	20.4675 mL	40.9350 mL
5 mM	0.8187 mL	4.0935 mL	8.1870 mL
10 mM	0.4093 mL	2.0467 mL	4.0935 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	General anesthetic with GABA modulatory and GABA-mimetic actions
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	human embryonic kidney (HEK293) cells (with high expression levels of the cloned murine 2A-adrenoceptor ,α2C-adrenoceptor and α2B -adrenoceptor subtypes)
Preparation method：	The solubility of this compound in DMSO is >12.2mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored

		below -20°C for several months.
	Reacting conditions:	10μM for 20 min
	Applications:	In membranes from HEK293 cells transfected with α2-receptors, etomidate inhibited binding of the α2-antagonist, [3H]RX821002, with higher potency from α2B- and α2C-receptors than from α2A-receptors.Etomidate activated mitogen-activated protein kinase phosphorylation via α2B -receptors. In α2B-receptor–expressing HEK293 cells, stimulated with 10μM etomidate for 20 min rapidly increased phosphorylation of the extracellular signal-related kinases ERK1/2.
In Vivo	**Animal experiment**	
	Animal models:	α 2Adrenoceptor-deficient Mice, α2Bdrenoceptor-deficient Mice
	Dosage form:	intraperitoneal injection ,5–50 mg/kg body weight
	Applications:	These results showed that 27% of the mice lost the reflex at 10 mg/kg etomidate and all mice transiently lost the righting reflex at 20mg/kg and higher etomidate doses. After injection of etomidate at 30 mg/kg, the righting reflex disappeared in wild-type and α2 A-deficient mice at similar times after intraperitoneal injection. On intravenous injection of etomidate at 30 mg/kg, wild-type mice showed a rapid and transient hypertensive response that was completely absent in mice lacking α2B-receptors.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Paris A, Philipp M, Tonner PH., et al. Activation of alpha 2B-adrenoceptors mediates the cardiovascular effects of etomidate. Anesthesiology. 2003 Oct;99(4):889-95.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable

under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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