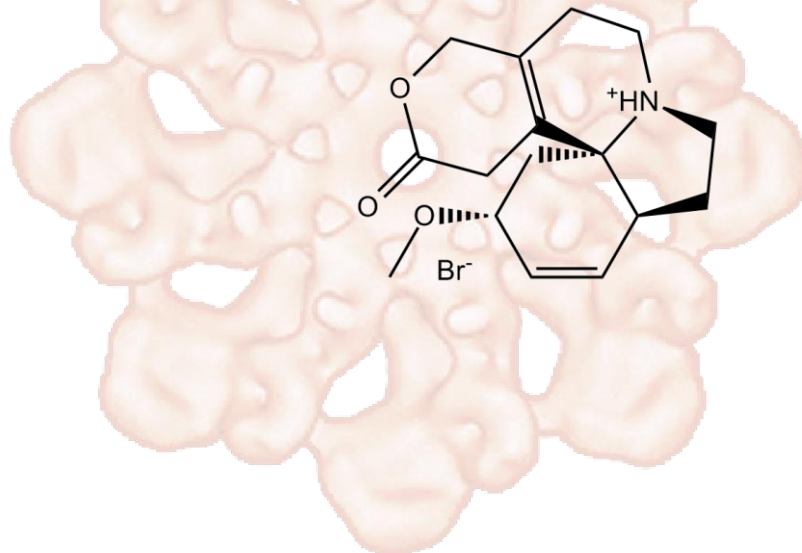


## Product Data Sheet

### Dihydro- $\beta$ -erythroidine hydrobromide

<b>Cat. No.:</b>	B7030
<b>CAS No.:</b>	29734-68-7
<b>Formula:</b>	C <sub>16</sub> H <sub>21</sub> NO <sub>3</sub> ·HBr
<b>M.Wt:</b>	356.26
<b>Synonyms:</b>	
<b>Target:</b>	Neuroscience
<b>Pathway:</b>	Nicotinic Receptor
<b>Storage:</b>	Desiccate at RT



### Solvent & Solubility

<35.63mg/ml in H<sub>2</sub>O; <8.91mg/ml in DMSO

In Vitro

Preparing Stock Solutions	Solvent Concentration	Mass	1mg	5mg	10mg
	<b>1 mM</b>		2.8069 mL	14.0347 mL	28.0694 mL
	<b>5 mM</b>		0.5614 mL	2.8069 mL	5.6139 mL
	<b>10 mM</b>		0.2807 mL	1.4035 mL	2.8069 mL

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

### Biological Activity

Shortsummary

antagonist of nAChRs

IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

Cell Line:	Xenopus oocytes
Preparation method:	The solubility of this compound in DMSO is > 10 mM. 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:	300nM or 1 $\mu$ M
Applications:	At the concentration of 1 $\mu$ M, Dihydro- $\beta$ -erythroidine Hydrobromide almost

	completely blocked the $\alpha 4\beta 4$ subunit but showed little effect on the $\alpha 3\beta 4$ subunit. However, the blockade effect of Dihydro- $\beta$ -erythroidine Hydrobromide on the $\alpha 4\beta 4$ subunit could be reversed by increasing the agonist concentration. In the presence of 300 nM Dihydro- $\beta$ -erythroidine Hydrobromide, the current response of $\alpha 4\beta 4$ -expressing oocytes to 5 $\mu$ M and 500 $\mu$ M ACh were $36.0 \pm 9.0 \%$ and $97.1 \pm 9.6 \%$ of the response to ACh alone, respectively.	
In Vivo	<b>Animal experiment</b>	
	Animal models:	A nicotine-induced hypothermia mouse model
	Dosage form:	0, 1.8, 3.6, 7.2 or 10.8 $\mu$ mol/kg; s.c.
	Applications:	In a nicotine-induced hypothermia mouse model, Dihydro- $\beta$ -erythroidine Hydrobromide dose-dependently attenuated hypothermia, with the AD50 value of 6.2 $\mu$ mol/kg. But it did not have a significant effect on the non-nicotine-induced increase in body temperature at the indicated doses.
	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](http://www.apexbt.com).

## References

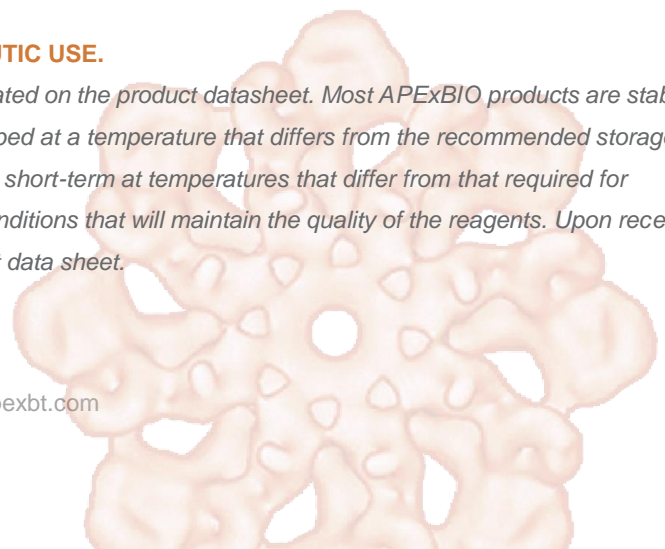
- [1]. Harvey SC, Maddox FN, Luetje CW. Multiple determinants of dihydro-beta-erythroidine sensitivity on rat neuronal nicotinic receptor alpha subunits. J Neurochem. 1996 Nov;67(5):1953-9.
- [2]. Damaj MI, Welch SP, Martin BR. In vivo pharmacological effects of dihydro-beta-erythroidine, a nicotinic antagonist, in mice. Psychopharmacology (Berl). 1995 Jan;117(1):67-73.

## 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 APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term 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.



**APEX BIO Technology**

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