



LKT Laboratories, Inc.

## Pifithrin- $\alpha$ -cyclic Hydrobromide

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### Product Information

**Product ID** P327212

**CAS No.** 511296-88-1

**Chemical Name** 2-(4-methylphenyl)-5,6,7,8-tetrahydroimidazo[2,1-b][1,3]benzothiazole;hydrobromide

**Synonym** Pifithrin-beta hydrobromide

**Formula** C<sub>16</sub>H<sub>16</sub>N<sub>2</sub>S • HBr

**Formula Wt.** 349.29

**Melting Point**

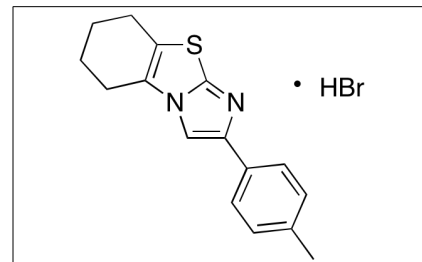
**Purity** ≥98%

**Solubility** Soluble in ethanol to 25 mM and in DMSO to 100 mM

**Store Temp** -20°C

**Ship Temp** Ambient

**Description** Pifithrin- $\alpha$ -cyclic is a more stable and less cytotoxic analog of pifithrin- $\alpha$ . Pifithrin- $\alpha$  is a small molecule inhibitor of p53 shown to prevent neuronal death induced by DNA damage. Pifithrin- $\alpha$  has also been found to interfere in heat shock and glucocorticoid receptor signaling pathways. Both in vivo and in vitro pifithrin- $\alpha$  inhibited firefly luciferase activity.



### Pricing and Availability

**Bulk quantities available upon request**

Product ID	Size	List Price
P327212	5 mg	\$75.10
P327212	10 mg	\$135.10
P327212	25 mg	\$285.60
P327212	100 mg	\$788.90

**References** Komarova EA, Nenanov N, Komarov PG, et al. p53 inhibitor pifithrin alpha can suppress heat shock and glucocorticoid signaling pathways. *J Biol Chem.* 2003 May 2;278(18):15465-15468. PMID: 12637507.

Rocha S, Campbell KJ, Roche KC, et al. The p53-inhibitor pifithrin- $\alpha$  inhibits firefly luciferase activity in vivo and in vitro. *BMC Mol Biol.* 2003 Sep 11;4:9. PMID: 12967348.

Kanno S, Kurachi K, Tomizawa A, et al. Pifithrin- $\alpha$  has a p53-independent cytoprotective effect on docosahexaenoic acid-induced cytotoxicity in human hepatocellular carcinoma HepG2 cells. *Toxicol Lett.* 2015 Jan 22, 232(2):393-402. PMID: 25448278.

Murphy PJ, Galigniana MD, Morishima Y, et al. Pifithrin- $\alpha$  inhibits p53 signaling after interaction of the tumor suppressor protein with hsp90 and its nuclear translocation. *J Biol Chem.* 2004 Jul 16;279(29):30195-30201. PMID: 15145929.

Zuco V, Zunino F. Cyclic pifithrin- $\alpha$  sensitizes wild type p53 tumor cells to antimicrotubule agent-induced apoptosis. *Neoplasia.* 2008 Jun;10(6):587-596. PMID: 18516295.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.