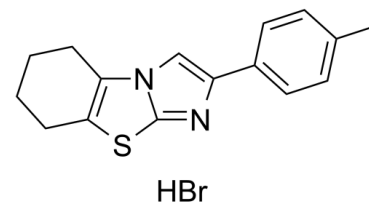


## Data Sheet

<b>Product Name:</b>	Pifithrin-β (hydrobromide)
<b>Cat. No.:</b>	CS-3371
<b>CAS No.:</b>	511296-88-1
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>17</sub> BrN <sub>2</sub> S
<b>Molecular Weight:</b>	349.29
<b>Target:</b>	Ferroptosis; MDM-2/p53
<b>Pathway:</b>	Apoptosis
<b>Solubility:</b>	DMSO : 10 mg/mL (28.63 mM; Need ultrasonic)



### BIOLOGICAL ACTIVITY:

Pifithrin-β hydrobromide (PFT β hydrobromide) is a potent **p53** inhibitor with an **IC<sub>50</sub>** of 23 μM. IC<sub>50</sub> & Target: IC<sub>50</sub>: 23 μM (p53)<sup>[1]</sup> **In Vitro:** Pifithrin-α hydrobromide (PFT β hydrobromide), an inhibitor of the p53 protein, is regarded as a lead compound for cancer and neurodegenerative disease therapy. Pifithrin-α is very unstable in culture medium and rapidly converts to its condensation product pifithrin-β, the N-acetyl derivative<sup>[2]</sup>. After 24 h, the viability assay shows that the pretreatments with 1 and 10 μM pifithrin-β exerts neuroprotective effects<sup>[3]</sup>.

### References:

- [1]. Christodoulou MS, et al. Synthesis and biological evaluation of imidazo[2,1-b]benzothiazole derivatives, as potential p53 inhibitors. *Bioorg Med Chem.* 2011 Mar 1;19(5):1649-57.
- [2]. Fernández-Cruz ML, et al. Biological and chemical studies on aryl hydrocarbon receptor induction by the p53 inhibitor pifithrin-α and its condensation product pifithrin-β. *Life Sci.* 2011 Apr 25;88(17-18):774-83.
- [3]. Da Pozzo E, et al. p53 functional inhibitors behaving like pifithrin-β counteract the Alzheimer peptide non-β-amyloid component effects in human SH-SY5Y cells. *ACS Chem Neurosci.* 2014 May 21;5(5):390-9.

### CAIndexNames:

Imidazo[2,1-b]benzothiazole, 5,6,7,8-tetrahydro-2-(4-methylphenyl)-, hydrobromide (1:1)

### SMILES:

CC1=CC=C(C2=CN3C(SC4=C3CCCC4)=N2)C=C1.Br

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA