

Product Data Sheet

Irsogladine maleate

Cat. No.: HY-B0327A CAS No.: 84504-69-8 Molecular Formula: $C_{13}H_{11}Cl_{2}N_{5}O_{4}$

Molecular Weight:

372.16 Target: mAChR; Phosphodiesterase (PDE)

Pathway: GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease

Please store the product under the recommended conditions in the Certificate of Storage:

Analysis.

BIOLOGICAL ACTIVITY

Description Irsogladine is a PDE4 inhibitor and muscarinic acetylcholine receptor binder. Target: PDE4; mACHRIrsogladine treatment (300 and 500 mg/kg/day) resulted in a dose-dependent reduction of angiogenesis in wild-type mice by 21 and 45.3% (P < 0.02, P < 0.001), in tPA-deficient mice by 42.6 and 46% (P < 0.001, P < 0.001), and in uPA-deficient mice by 27.2 and 46% (P < 0.001) 0.05, p < 0.001), respectively. Irsogladine inhibits bFGF-induced angiogenesis in wild-type, tPA-knockout, and uPA-knockout mice [1]. Irsogladine up-regulates GJIC between PC cells via regulation of the PKA pathway. It also suggests a useful adjuvant of Irsogladine to pancreatic cancer therapy [2]. irsogladine produces the increase of intracellular cAMP content via non-selective inhibition of PDE isozymes, which may be a key mechanism involved in its gastroprotective actions [3].

IC₅₀ & Target PDE4

CUSTOMER VALIDATION

Cryst Growth Des. 2016, 16 (12):6714-6718.

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REFERENCES

[1]. Ren, C.J., et al., Irsogladine maleate inhibits angiogenesis in wild-type and plasminogen activator-deficient mice. J Surg Res, 1998. 77(2): p. 126-31.

[2]. Kawasaki, Y., et al., Irsogladine malate up-regulates gap junctional intercellular communication between pancreatic cancer cells via PKA pathway. Pancreas, 2002. 25(4): p. 373-7.

[3]. Kyoi, T., et al., Phosphodiesterase inhibition by a gastroprotective agent irsogladine: preferential blockade of cAMP hydrolysis. Life Sci, 2004. 75(15): p. 1833-42.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

Tel: 609-228-6898 Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

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

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