Product Datasheet

Gepirone hydrochloride

Catalog No. **BP-08729A** · CAS **83928-66-9** · Form **salt · hydrochloride** · Physical state **solid** · Color **White to off-white** · Version **1.0** · Revision **2026-11-12**

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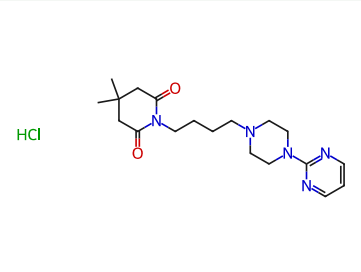
Target	Research area
5-HT Receptor	**Neurological Disease**

Molecular formula	$C_{19}H_{30}ClN_5O_2$
Molecular weight	**395.9350**

STRUCTURE



DESCRIPTION

Gepirone is a selective 5-HT1A agonist. Gepirone binds selectively to 5-HT1A receptor binding site. Gepirone acts as an antidepressant agent can be used for anxiety and major depressive disorder research .

BIOLOGICAL ACTIVITY

In Vitro

GW-870086 a glucocorticoid receptor agonist, inhibits NFkB reporter gene with a pIC50 of 10.1, but shows no effect on the MMTV reporter genes in A549 cells, and has little or no activity at the oestrogen receptor, progesterone receptor, progesterone receptor, mineralocorticoid receptor or androgen receptor. GW-870086 (1 pM-1 μM) dose-dependently inhibits the L-6 release induced by TNF-α in A549 epithelial carcinoma cells and by IL-1 in MG63 osteosarcoma cells (pIC50s, 9.6, 10.2)[1]. GW-870086 (GW870086X; 10-100 nM) significantly increases fibronectin secretion. However, GW-870086 has no effect on MMP2 secretion, and does not increase cellular myocilin[2].

REFERENCES

[1]. Mendelson SD, et al. Effects of 5-HT1A selective anxiolytics on lordosis behavior: interactions with progesterone. Eur J Pharmacol. 1986 Dec 16;132(2-3):323-6. (https://pubmed.ncbi.nlm.nih.gov/2880737/)

[2]. Blier P, et al. Modification of 5-HT neuron properties by sustained administration of the 5-HT1A agonist gepirone: electrophysiological studies in the rat brain. Synapse. 1987;1(5):470-80. (https://pubmed.ncbi.nlm.nih.gov/2905533/)