Product Data Sheet

Product Name: FAUC-365
Cat. No.: GC12466

Chemical Properties

Cas. No.	474432-66-1		
Chemical Name	N-[4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butyl]-benzo[b]thiophene-2-carboxamide		
SMILES	ClC1=C(Cl)C(N2CCN(CCCCNC(C3=CC4=C(C=CC=C4)S3)=O)CC2)=CC=C1		
Formula	$C_{23}H_{25}Cl_2N_3OS$	M.Wt	462.4
Solubility	DMF: 30 mg/ml,DMSO: 30 mg/ml,DMSO:PBS (pH 7.2) (1:2): 0.25 mg/ml,Ethanol: 2 mg/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	FAUC-365		

Background

FAUC-365 is a D3 dopamine receptor agonist.

The dopamine D3 receptor, first identified in 1990, is preferentially expressed in the nucleus accumbens, where dopamine is released by neurons originating from the ventral tegmental area. Convincing pharmacological studies implicate D3-mediated neurotransmission in the reinforcing effects of cocaine. It is therefore a target for drugs which treat drug addiction, schizophrenia, as well as Parkinson's disease.

In vitro: FAUC-365 was discovered by a rational and interactive SAR sequence. As a dichloro derivative, FAUC-365 revealed D3 affinities that were comparable to its methoxy-substituted analogues, however, the selectivities of FAUC-365 against 5HT-1A, 5-HT2, and R1 were substantially higher, which was demonstrated by that extraordinary selectivity ratios of 17600, 7200, 5200, and 680 over D1, D2long, D2short, and D4,

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

respectively, were determined for FAUC-365 with Ki of 0.50 nM. In addition, the benzothiophene analog FAUC 346 and its oxa analogue showed partial agonist character with EC50 values at 0.36 and 1.5 nM, respectively [1].

In vivo: Up to now, there is no animal in vivo data reported for FAUC-365.

Clinical trial: So far, no clinical study has been conducted.

Reference:
[1] Bettinetti L, Schlotter K, Hübner H, Gmeiner P. Interactive SAR studies: rational discovery of super-potent and highly selective dopamine D3 receptor antagonists and partial agonists. J Med Chem. 2002 Oct 10;45(21):4594-7.