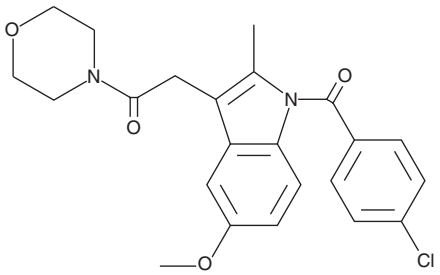
PRODUCT INFORMATION

IMMA

Item No. 70275

CAS Registry No.:	2854-32-2
Formal Name:	2-[1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1H-indol-3-yl]-1-(4-morpholinyl)-ethanone
Synonyms:	BML-190, Indomethacin Morpholinylamide, LM-4131
MF:	$C_{23}H_{23}ClN_2O_4$
FW:	426.9
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

IMMA is supplied as a crystalline solid. A stock solution may be made by dissolving the IMMA in the solvent of choice, which should be purged with an inert gas. IMMA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of IMMA in these solvents is approximately 1.25, 12.75, and 25 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of IMMA can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of IMMA in PBS, pH 7.2, is approximately 50 µg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

IMMA is a cannabinoid (CB) receptor 2 inverse agonist (K_i = 435 nM for recombinant human CB_2).[1,2] It is selective for CB_2 over CB_1 receptors (K_i = >20 µM). IMMA (0.001-1 µM) reduces basal production of inositol phosphate and increases forskolin-induced accumulation of cAMP in HEK293 cells expressing human CB_2 receptors.[2] It inhibits LPS-induced nitric oxide (NO) and prostaglandin E_2 (PGE_2: Item No. 14010) production in J774 macrophages in a concentration-dependent manner.[3]

References

1. Gallant, M., Dufresne, C., Gareau, Y., *et al.* New class of potent ligands for the human peripheral cannabinoid receptor. *Bioor. Med. Chem. Lett.* **6(19)**, 2263-2268 (1996).
2. New, D.C. and Wong, Y.H. BML-190 and AM251 act as inverse agonists at the human cannabinoid CB_2 receptor: Signalling via cAMP and inositol phosphates. *FEBS Lett.* **536(1-3)**, 157-160 (2003).
3. Chang, Y.-H., Lee, S.T., and Lin, W.-W. Effects of cannabinoids on LPS-stimulated inflammatory mediator release from macrophages: Involvement of eicosanoids. *J. Cell. Biochem.* **81(4)**, 715-723 (2001).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM