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DATASHEET

VU 29

Product overview

Name	VU 29
Cat No	HB0642
Biological action	PAM
Purity	>98%
Description	Potent mGlu ₅ positive allosteric modulator

Images



Biological Data

Biological description	VU 29 is a potent mGlu ₅ receptor positive allosteric modulator ($EC_{50} = 9$ nM). It selectively potentiates mGlu ₅ over mGlu ₁ and mGlu ₂ receptors (EC_{50} values are 557 nM and 1.51 μ M for mGlu ₁ and mGlu ₂ receptors respectively). CDPPB analog.
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VU 29 potentiates **DHPG**-induced LTP and TBS-induced LTP in rat hippocampal slices.

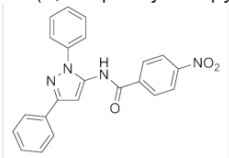
Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in DMSO (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	<i>N</i> -(1,3-Diphenyl-1 <i>H</i> -pyrazolo-5-yl)-4-nitrobenzamide
Molecular Weight	384.39
Chemical structure	



Chemical name	N-(1,3-Diphenyl-1 <i>H</i> -pyrazolo-5-yl)-4-nitrobenzamide
	
Molecular Formula	C ₂₂ H ₁₆ N ₄ O ₃
CAS Number	890764-36-0
PubChem identifier	11610682
SMILES	C1=CC=C(C=C1)C2=NN(C(=C2)NC(=O)C3=CC=C(C=C3)[N+](=O)[O-])C4=CC=CC=C4
Source	Synthetic
InChi	InChI=1S/C22H16N4O3/c27-22(17-11-13-19(14-12-17)26(28)29)23-21-15-20(16-7-3-1-4-8-16)24-25(21)18-9-5-2-6-10-18/h1-15H,(H,23,27)
InChiKey	KIALCSMRIHRFPL-UHFFFAOYSA-N
Appearance	Yellow solid

References

Interaction of novel positive allosteric modulators of metabotropic glutamate receptor 5 with the negative allosteric antagonist site is required for potentiation of receptor responses.

Chen Y *et al* (2007) Mol Pharmacol 71(5)

PubMedID [17303702](#)

Substituent effects of N-(1,3-diphenyl-1H-pyrazol-5-yl)benzamides on positive allosteric modulation of the metabotropic glutamate-5 receptor in rat cortical astrocytes.

de Paulis T *et al* (2006) J Med Chem 49(11)

PubMedID [16722652](#)

mGluR5 positive allosteric modulators facilitate both hippocampal LTP and LTD and enhance spatial learning.

Ayala JE *et al* (2009) Neuropsychopharmacology 34(9)

PubMedID [19295507](#)