Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

DATASHEET

N-Arachidonylglycine (NAGly)

Product overview

Name	N-Arachidonylglycine (NAGly)
Cat No	HB0439
Alternative names	NAGly
Biological action	Inhibitor
Description	Endogenous GLYT2 inhibitor / $Ca_v3.1$ / 3.2 / 3.3 current inhibitor

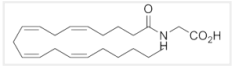
Biological Data

Biological description	Endogenous GLYT2 inhibitor (IC_{50} = 3 µM) that displays little activity at GLYT1. Also reversibly inhibits $Ca_v3.1$, $Ca_v3.2$ and $Ca_v3.3$ currents (EC_{50} values are 1.3 µM, 600 nM and 1.6 µM respectively). Novel insulin secretagogue and natural ligand for orphan G-protein-coupled receptor, GPR18. Displays analgesic properties.

Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in ethanol (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	*N*-(1-oxo-5*Z*,8*Z*,11*Z*,14*Z*-eicosatetrae nyl)glycine
Molecular Weight	361.52
Chemical structure	
Molecular Formula	$C_{22}H_{35}NO_3$
CAS Number	179113-91-8
PubChem identifier	5283389
SMILES	O=C(CCC/C=CC/C=CC/C=CC/C=CCCCCC)NCC(=O)O
InChiKey	YLEARPUNMCCKMP-DOFZRALJSA-N

References

Identification of N-arachidonylglycine, U18666A, and 4-androstene-3,17-dione as novel insulin Secretagogues.

Ikeda Y *et al* (2005) Biochem Biophys Res Commun 333(3)
PubMedID 15967412

Identification of N-arachidonylglycine as the endogenous ligand for orphan G-protein-coupled receptor GPR18.

Kohno M *et al* (2006) Biochem Biophys Res Commun 347(3)
PubMedID 16844083

T-type calcium channel inhibition underlies the analgesic effects of the endogenous lipoamino acids.

Barbara G *et al* (2009) J Neurosci 29(42)
PubMedID 19846698

Extracellular loops 2 and 4 of GLYT2 are required for N-arachidonylglycine inhibition of glycine transport.

Edington AR *et al* (2009) J Biol Chem 284(52)
PubMedID 19875446