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# DATASHEET

## N-Arachidonylglycine (NAGly)

### Product overview

<b>Name</b>	N-Arachidonylglycine (NAGly)
<b>Cat No</b>	HB0439
<b>Alternative names</b>	NAGly
<b>Biological action</b>	Inhibitor
<b>Description</b>	Endogenous GLYT2 inhibitor / Ca <sub>v</sub> 3.1 / 3.2 / 3.3 current inhibitor

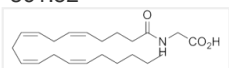
### Biological Data

<b>Biological description</b>	Endogenous GLYT2 inhibitor (IC <sub>50</sub> = 3 μM) that displays little activity at GLYT1. Also reversibly inhibits Ca <sub>v</sub> 3.1, Ca <sub>v</sub> 3.2 and Ca <sub>v</sub> 3.3 currents (EC <sub>50</sub> 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.
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### Solubility & Handling

<b>Storage instructions</b>	-20 °C (desiccate)
<b>Solubility overview</b>	Soluble in ethanol (100mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	N-(1-oxo-5Z,8Z,11Z,14Z-eicosatetrae nyl)glycine
<b>Molecular Weight</b>	361.52
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>22</sub> H <sub>35</sub> NO <sub>3</sub>
<b>CAS Number</b>	179113-91-8
<b>PubChem identifier</b>	5283389
<b>SMILES</b>	O=C(CCC/C=CC/C=CC/C=CC/C=CCCCC)NCC(=O)O
<b>InChiKey</b>	YLEARPUNMCKMP-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.

Kohn 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](#)

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