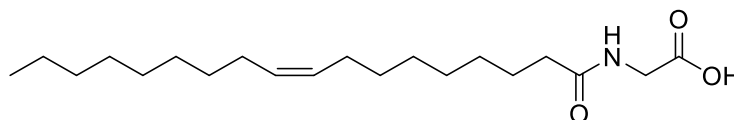


N-Oleoylglycine

Code No.: **BIA-O2291**

Pack sizes: **0.1 mg, 0.5 mg**



Synonyms : N-Oleoylglycine, N-[(9Z)-1-Oxo-9-octadecen-1-yl]glycine

Specifications

CAS #	: 2601-90-3
Molecular Formula	: C ₂₀ H ₃₇ NO ₃
Molecular Weight	: 339.51
Source	: Synthetic
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in methanol or DMSO

Application Notes

N-Oleoylglycine is an endogenous fatty acid amide that stimulates lipid accumulation and significantly increases adipogenic genes, PPAR γ and aP2, in a dose- and time-dependent manner, activating the CB1 receptor and enhancing the insulin-mediated Akt signaling pathway in 3T3-L1 adipocytes. N-Oleoylglycine is a moderately potent agonist of the lipid receptor G2A/GPR132. N-Oleoylglycine-induced hyperphagia is associated with activation of the AgRP neuron by the cannabinoid receptor Type 1 (CB1R). N-Oleoylglycine protects against mild traumatic brain injury in an in vivo mouse model, ameliorating behavioral alterations and modulating endocannabinoid and endocannabinoid-like mediator tone.

References

1. Oleic acid derived metabolites in mouse neuroblastoma N18TG2 cells. Merkler D.J. et al. Biochem. 2004, 43, 12667.
2. N-Oleoyl glycine, a lipoamino acid, stimulates adipogenesis associated with activation of CB1 receptor and Akt signaling pathway in 3T3-L1 adipocyte. Wang S. et al. Biochem Biophys Res Commun. 2015, 466, 438.
3. N-Palmitoylglycine and other N-acylamides activate the lipid receptor G2A/GPR132. Foster J.R. et al. Pharmacol Res Perspect. 2019, 7, e00542.
4. Protective effects of N-oleoylglycine in a mouse model of mild traumatic brain injury. Piscitelli F. et al. ACS Chem Neurosci. 2020, 11, 1117.