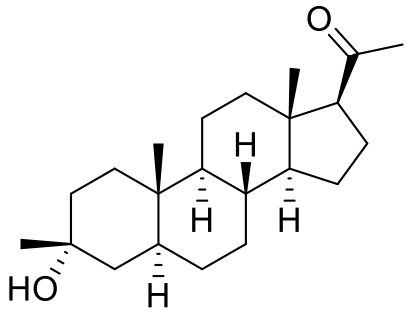
Product data sheet

MedKoo Cat#: 326945 Name: Ganaxolone CAS#: 38398-32-2 Chemical Formula: $C_{22}H_{36}O_2$ Exact Mass: 332.2715 Molecular Weight: 332.528	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.



1. Product description:
Ganaxolone, also known as CCD 1042 and C1042, is a CNS-selective GABAA modulator that acts on well-characterized targets in the brain known to have anxiolytic and anticonvulsant effects. Ganaxolone protects against seizures in diverse animal models, including the pentylenetetrazol, 6 Hz and amygdala kindling models. Ganaxolone is a positive allosteric modulator of the action of the GABAA receptor and, unlike benzodiazepines, there does not appear to be tolerance to the anticonvulsant effects of ganaxolone.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	3.33	10.0
Ethanol	3.83	11.5

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	3.01 mL	15.04 mL	30.07 mL
5 mM	0.60 mL	3.01 mL	6.01 mL
10 mM	0.30 mL	1.50 mL	3.01 mL
50 mM	0.06 mL	0.30 mL	0.60 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

TBD

In vivo study

1. Mouihate A, Kalakh S. Ganaxolone enhances microglial clearance activity and promotes remyelination in focal demyelination in the corpus callosum of ovariectomized rats. CNS Neurosci Ther. 2020 Feb;26(2):240-250. doi: 10.1111/cns.13195. Epub 2019 Jul 22. PMID: 31332963; PMCID: PMC6978248.
2. Kazdoba TM, Hagerman RJ, Zolkowska D, Rogawski MA, Crawley JN. Evaluation of the neuroactive steroid ganaxolone on social and repetitive behaviors in the BTBR mouse model of autism. Psychopharmacology (Berl). 2016 Jan;233(2):309-23. doi: 10.1007/s00213-015-4115-7. Epub 2015 Nov 3. PMID: 26525567; PMCID: PMC4703522.

7. Bioactivity
Biological target:

Ganaxolone is a potent positive allosteric modulator of $GABA_A$ receptors.

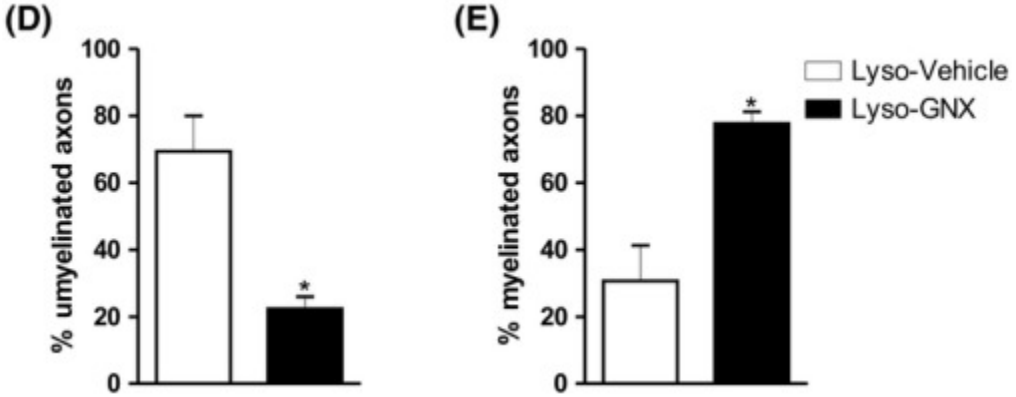
Product data sheet

In vitro activity

TBD

In vivo activity

GNX (ganaxolone) treatment significantly reduced the g-ratio compared to vehicle-treated rats (Lyso-Vehicle: n = 3, Lyso-GNX: n = 3, $P < .05$, Figure 2C). GNX treatment also led to a significant reduction in the percentage of unmyelinated axons (Figure 2D) and an increase in myelinated axons (Figure 2E) in the vicinity of the demyelination lesion.



Reference: CNS Neurosci Ther. 2020 Feb;26(2):240-250. https://pubmed.ncbi.nlm.nih.gov/31332963/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.