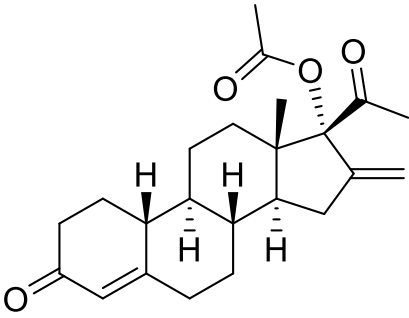


Product data sheet



MedKoo Cat#: 326796 Name: Segesterone acetate CAS#: 7759-35-5 (acetate) Chemical Formula: C ₂₃ H ₃₀ O ₄ Exact Mass: 370.2144 Molecular Weight: 370.49	
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:

Segesterone acetate, also known as ST-1435 or nestorone, is a progesterone receptor agonist, which is a potential female-contraceptive agent. Nestorone holds back proinflammatory mediators and neuropathology in the wobbler mouse model of motoneuron degeneration. Nestorone protected against hippocampus abnormalities and improved functional outcomes of EAE mice, suggesting its potential value for MS.

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	33.33	89.96

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.70 mL	13.50 mL	26.99 mL
5 mM	0.54 mL	2.70 mL	5.40 mL
10 mM	0.27 mL	1.35 mL	2.70 mL
50 mM	0.05 mL	0.27 mL	0.54 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

To be determined

In vivo study

- Lee JY, Castelli V, Kumar N, Sitruk-Ware R, Borlongan CV. Contraceptive drug, Nestorone, enhances stem cell-mediated remodeling of the stroke brain by dampening inflammation and rescuing mitochondria. *Free Radic Biol Med.* 2022 Apr;183:138-145. doi: 10.1016/j.freeradbiomed.2022.03.020. Epub 2022 Mar 25. PMID: 35341914.
- Fréchou M, Zhu X, Kumar N, Sitruk-Ware R, Schumacher M, Mattern C, Guennoun R. Sex differences in the cerebroprotection by Nestorone intranasal delivery following stroke in mice. *Neuropharmacology.* 2021 Oct 15;198:108760. doi: 10.1016/j.neuropharm.2021.108760. Epub 2021 Aug 23. PMID: 34437904.

7. Bioactivity

Biological target:

Segesterone acetate is a synthetic progestin that binds to the progesterone receptor (EC₅₀ = 50.3 nM). It also binds to the glucocorticoid receptor (EC₅₀ = 56 nM) but does not have in vivo glucocorticoid activity.

Product data sheet



In vitro activity

To be determined

In vivo activity

This study demonstrated that stand-alone treatments of Nestorone or human amniotic fluid-derived stem cells (hAFSc) led to significant improvements in behavioral function and reductions in infarction and peri-infarct cell loss in adult rats with ischemic stroke. There were significantly lower levels of pro-inflammatory signals and enhanced levels of stem cell proliferation and differentiation in the brains and spleens of stroke rats treated with stand-alone or combined Nestorone and hAFSc.

Reference: Free Radic Biol Med. 2022 Apr;183:138-145. <https://pubmed.ncbi.nlm.nih.gov/35341914/>

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.