

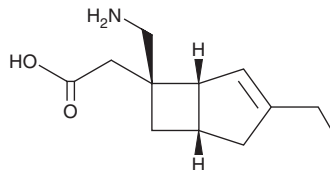
PRODUCT INFORMATION



Mirogabalin

Item No. 22475

CAS Registry No.: 1138245-13-2
Formal Name: (1R,5S,6S)-6-(aminomethyl)-3-ethyl-bicyclo[3.2.0]hept-3-ene-6-acetic acid
Synonym: DS-5565
MF: C₁₂H₁₉NO₂
FW: 209.3
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Mirogabalin is supplied as a crystalline solid. A stock solution may be made by dissolving the mirogabalin in the solvent of choice. Mirogabalin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of mirogabalin in these solvents is approximately 0.5 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of mirogabalin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of mirogabalin in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Mirogabalin is a calcium channel blocker with analgesic effects.¹ It binds to the $\alpha_2\delta-1$ and $\alpha_2\delta-2$ subunits of voltage-dependent Ca²⁺ channels. Mirogabalin has potent and sustained analgesic effects (ED₅₀ = 2.5 mg/kg) in rats with diabetes induced by streptozotocin (STZ; Item No. 13104). Mirogabalin does not inhibit activities associated with CNS adverse effects of analgesics, such as rotarod performance (ID₅₀ = 9.4 mg/kg) or locomotor activity (ID₅₀ = 43.9 mg/kg), at its effective dose.

Reference

1. Brown, K., Ohwada, S., Warren, V., et al. (405) A single ascending-dose study of mirogabalin in healthy subjects: Safety, tolerability, pharmacokinetic, and pharmacodynamic results. *J. Pain* **17(4S)**, S76 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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