

## **Data Sheet**

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 Product Name
 :
 Mirogabalin

 Cat. No.
 :
 PC-43138

 CAS No.
 :
 1138245-13-2

 Molecular Formula
 :
 C<sub>12</sub>H<sub>19</sub>NO<sub>2</sub>

 Molecular Weight
 :
 209.2848

Target : Calcium Channel

**Solubility** : DMSO: 10 mM; Methanol: ≥ 35 mg/mL

## **Biological Activity**

Mirogabalin (DS-5565) is a potent, selective ligand of the  $\alpha2\delta$  subunit of **voltage-gated calcium channels** with Kd of 13.5/22.7/27.0/47.6 nM for huamn  $\alpha2\delta$ -1, human  $\alpha2\delta$ -2, rat  $\alpha2\delta$ -1 and rat  $\alpha2\delta$ -2 subunits, respectively.

Mirogabalin (DS-5565) exhibits a slower dissociation rate for the  $\alpha 2\delta$ -1 subunit than the  $\alpha 2\delta$ -2 subunit compared to pregabalin.

Mirogabalin (DS-5565) shows more potent and longer lasting analgesic effects in experimental neuropathic pain models, partial sciatic nerve ligation rats and streptozotocin-induced diabetic rats.

Mirogabalin (DS-5565) inhibits rota-rod performance and locomotor activity in rats.

## References

Merante D, et al. **Pain Med.** 2017 Nov 1;18(11):2198-2207.

Vinik A, et al. *Diabetes Care.* 2014 Dec;37(12):3253-61.

Domon Y, et al. *J Pharmacol Exp Ther.* 2018 Mar 21. pii: jpet.117.247551.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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