
Product Data Sheet

Product Name: Nefopam D3 hydrochloride

Cat. No.: GC64837

Chemical Properties

Cas. No. 1346603-30-2

Formula C₁₇H₁₇D₃CINO M.Wt 292.82

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

Nefopam D3 hydrochloride is the deuterium labeled Nefopam hydrochloride. Nefopam hydrochloride (Fenazoxine hydrochloride) is a centrally-acting but non-opioid analgesic drug, for the relief of moderate to severe pain. Nefopam hydrochloride targets β -catenin protein level in mesenchymal cells in-vitro and in-vivo[1][2].

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Kim KH, et al. Rediscovery of nefopam for the treatment of neuropathic pain. *Korean J Pain.* 2014 Apr;27(2):103-11.

[3]. Baht GS, et al. Pharmacologically targeting beta-catenin for NF1 associated deficiencies in fracture repair. *Bone.* 2017 May;98:31-36.

[4]. Poon R, et al. A high throughput screen identifies Nefopam as targeting cell proliferation in β -catenin driven neoplastic and reactive fibroproliferative disorders. *PLoS One.* 2012;7(5):e37940.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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