

Product Data Sheet

Product Name: Dolcanatide

Cat. No.: GC74357

Chemical Properties

Cas. No. 1092457-65-2

Formula $C_{65}H_{104}N_{18}O_{26}S_4$

M.Wt 1681.89

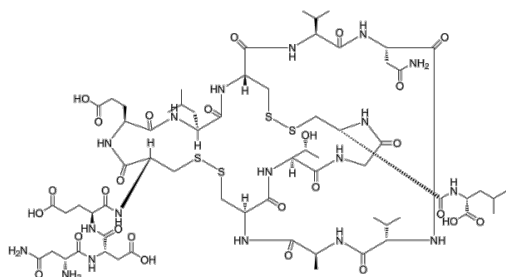
Solubility DMSO : 100 mg/mL (59.46 mM;
Need ultrasonic)

Storage Store at -20°C, under nitrogen, away
from moisture

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

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

Structure



Background

Dolcanatide is an orally active GC-C (guanylate cyclase-C) agonist. Dolcanatide shows laxative, anti-nociceptive and anti-inflammatory activity. Dolcanatide can be used in inflammatory bowel disease research.

Dolcanatide (0-10 μ M; 30 min) activates GC-C receptors to stimulate cGMP synthesis in a dose-dependent manner in T84 cells[2]. Dolcanatide (1 μ M; 16 h) suppresses lipopolysaccharide-induced paracellular permeability in Caco-2 and T84 cells[1].

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

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Dolcanatide (oral administration; 0.01 and 0.05 mg/kg; once) alleviates TNBS-induced rectal allodynia in rats[1]. Dolcanatide (oral administration; 0.01 and 0.05 mg/kg; once) alleviates stress-induced colorectal persensitivity (CRD) in rats[1].

References:

- [1]. Boulete IM, et al. Oral treatment with plecanatide or dolcanatide attenuates visceral persensitivity via activation of guanylate cyclase-C in rat models. *World J Gastroenterol*. 2018 May 7;24(17):1888-1900.
- [2]. Shailubhai K, et al. Plecanatide and dolcanatide, novel guanylate cyclase-C agonists, ameliorate gastrointestinal inflammation in experimental models of murine colitis. *World J Gastrointest Pharmacol Ther*. 2015 Nov 6;6(4):213-22.

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