Product Data Sheet

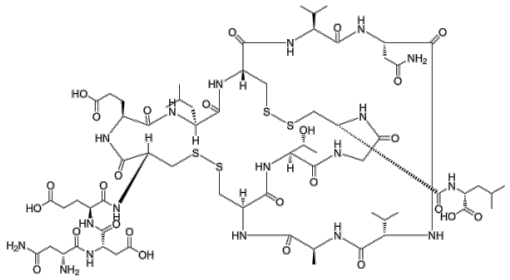
Product Name: Dolcanatide
Cat. No.: GC74357

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 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

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 μM; 30 min) activates GC-C receptors to stimulate cGMP synthesis in a dose-dependent manner in T84 cells[2].Dolcanatide (1 μM; 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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