

Linacлотide

Catalog No: tcsc3577



Available Sizes

Size: 5mg

Size: 10mg



Specifications

CAS No:

851199-59-2

Formula:

$C_{59}H_{79}N_{15}O_{21}S_6$

Pathway:

GPCR/G Protein

Target:

Guanylate Cyclase

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Observed Molecular Weight:

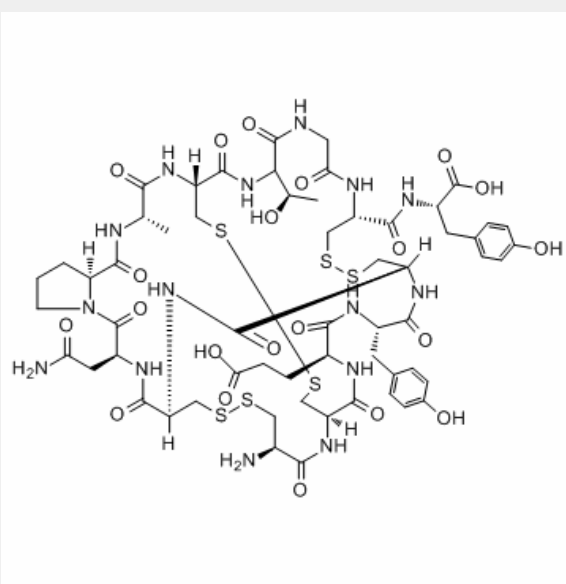
1526.74

Product Description

Linacлотide is a potent and selective **guanylate cyclase C** agonist; developed for the treatment of constipation-predominant irritable bowel syndrome (IBS-C) and chronic constipation.

In Vitro: Linacлотide inhibits *in vitro* [¹²⁵I]-STa binding to intestinal mucosal membranes from wt mice in a concentration-dependent manner. In contrast, [¹²⁵I]-STa binding to these membranes from GC-C null mice is significantly decreased. After incubation *in vitro* in jejunal fluid for 30 min, linacлотide is completely degraded^[1]. Linacлотide acts on guanylate cyclase-C receptors on the luminal

In Vivo: Pharmacokinetic analysis shows very low oral bioavailability (0.10%). In intestinal secretion and transit models, linaclotide exhibits significant pharmacological effects in wt, but not in GC-C null mice: induction of increased fluid secretion into surgically ligated jejunal loops is accompanied by the secretion of elevated levels of cyclic guanosine-3',5-monophosphate and accelerated gastrointestinal transit^[1]. Linaclotide significantly increases weekly spontaneous bowel movements and complete spontaneous bowel movements (CSBMs) while reducing abdominal pain in patients with chronic constipation^[2].



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