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产品名称: **BT-11**
 产品别名: **BT-11**

生物活性:																									
Description	BT-11 is an orally available LANCL2 binding compound for treating inflammatory bowel disease.																								
In Vitro	LANCL2 engagement produces an increase of PKA, followed by an accumulation of cAMP in the cytoplasm. BT-11 treatment splenocytes shows a dose-response increase of cAMP production. BT-11 stimulates cAMP production by activating the LANCL2 pathway ^[1] .																								
In Vivo	The oral treatment with BT-11 (8 mg/kg/d) in a mouse model of inflammatory bowel disease results in lowering the disease activity index, decreasing colonic inflammatory lesions by 4-fold, and suppressing inflammatory markers (e.g., TNF- α , and interferon- γ) in the gut. Furthermore, studies in LANCL2 ^{-/-} mice demonstrates that loss of LANCL2 abrogates beneficial actions of BT-11, suggesting high selectivity for the target. Oral treatment with BT-11 (8 mg/kg/day) ameliorates colitis in mice. Initial safety assessment in rats indicates that oral treatment with BT-11 at high doses has an excellent safety profile up to 1000 mg/kg/day ^[1] . BT-11 is well tolerated in rats, and may hold promise as an orally active therapeutic for Crohn's disease. One hour after oral administration of a single dose of 80 mg/kg, BT-11 has a maximal concentration of 21 ng/mL; the half-life is 3 hours ^[2] .																								
Solvent&Solubility	<p>In Vitro: DMSO : ≥ 30 mg/mL (56.76 mM) * "\geq" means soluble, but saturation unknown.</p>																								
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<p>*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液。一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。 储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。</p>																									
References	<p>[1]. Carbo A, et al. An N,N-Bis(benzimidazolylpicolinoyl)piperazine (BT-11): A Novel Lanthionine Synthetase C-Like 2-Based Therapeutic for Inflammatory Bowel Disease. J Med Chem. 2016 Nov 23;59(22):10113-10126.</p> <p>[2]. Bissel P, et al. Exploratory Studies With BT-11: A Proposed Orally Active Therapeutic for Crohn's Disease. Int J Toxicol. 2016 Sep;35(5):521-9.</p>																								
实验参考:																									
Animal Administration	<p>Rats: Male Harlan Sprague Dawley rats are treated with a single oral dose of 500 mg/kg and 80 mg/kg/d for 14 days. Treated and control rats are observed for behavioral detriments, and blood and tissues are collected for clinical pathology and histopathological examination^[2].</p> <p>Mice: Wild type and LANCL2^{-/-} male mice are treated with 8 mg/kg/d BT-11 over 8 weeks. Mice are sacrificed and spleens are collected for splenocytes isolation. Cell lysates are collected and cAMP</p>																								



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	intracellular concentration is measured[1].
References	<p>[1]. Carbo A, et al. An N,N-Bis(benzimidazolylpicolinoyl)piperazine (BT-11): A Novel Lanthionine Synthetase C-Like 2-Based Therapeutic for Inflammatory Bowel Disease. J Med Chem. 2016 Nov 23;59(22):10113-10126.</p> <p>[2]. Bissel P, et al. Exploratory Studies With BT-11: A Proposed Orally Active Therapeutic for Crohn's Disease. Int J Toxicol. 2016 Sep;35(5):521-9.</p>



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