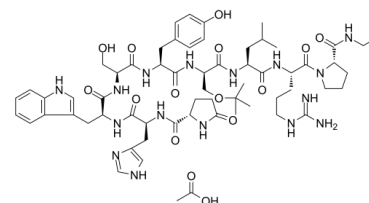


Data Sheet

Product Name:	Buserelin (Acetate)
Cat. No.:	CS-5962
CAS No.:	68630-75-1
Molecular Formula:	C ₆₂ H ₉₀ N ₁₆ O ₁₅
Molecular Weight:	1299.48
Target:	GNRH Receptor
Pathway:	GPCR/G Protein
Solubility:	H ₂ O : 50 mg/mL (38.48 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Buserelin Acetate is a gonadotropin-releasing hormone agonist (GnRH agonist). target: GnRH In vivo: Buserelin treatment reduced the number of neurons along the entire gastrointestinal tract, with increased relative numbers of CRF-immunoreactive submucosal and myenteric neurons in colon ($p < 0.05$ and $p < 0.01$, respectively).[1] Compared with controls, buserelin treatment caused loss of myenteric neurons in the ileum and colon ($P < 0.01$), a thinner circular muscle layer in ileum ($P < 0.05$) and longitudinal muscle layer in colon ($P < 0.05$). Long term follow up of buserelin induced enteric neuropathy reveals reduced body weight, loss of myenteric neurons, thinning of muscle layers, and increased numbers of eosinophils and T lymphocytes in the gastrointestinal tract.[2] A marked enteric neuronal loss with modest effects on GI function is found after buserelin treatment. Increased feces fat content is suggested an early sign of dysfunction.[3]

References:

- [1]. Sand E et al. Buserelin treatment to rats causes enteric neurodegeneration with moderate effects on CRF-immunoreactive neurons and Enterobacteriaceae in colon, and in acetylcholine-mediated permeability in ileum. BMC Res Notes. 2015 Dec 28;8:824.
- [2]. Jnsson A et al. Long term follow up of buserelin induced enteric neuropathy in rats. Mol Med Rep. 2016 Apr;13(4):3507-13.
- [3]. Sand E et al. Structural and functional consequences of buserelin-induced enteric neuropathy in rat. BMC Gastroenterol. 2014 Dec 11;14:209.

CAIndexNames:

1-9-Luteinizing hormone-releasing factor (swine), 6-[O-(1,1-dimethylethyl)-D-serine]-9-(N-ethyl-L-prolinamide)-, acetate (1:1)

SMILES:

O=C(N[C@@H](CO)C(N[C@H](C(N[C@H](COC(C)(C)C)C(N[C@@H](CC(C)C)C(N[C@@H](CCCNC(N)=N)C(N(CCC1)[C@@H]1C(NCC)=O)=O)=O)=O)CC2=CC=C(O)C=C2)=O)[C@@H](NC([C@@H](NC([C@@H](N3)CCC3=O)=O)CC4=CNC=N4)=O)CC5=CNC6=C5C=CC=C6.CC(O)=O

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

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