

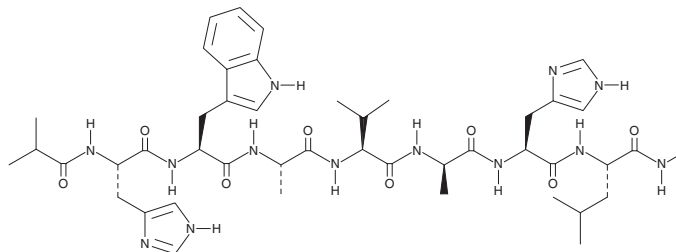
PRODUCT INFORMATION



ICI 216140

Item No. 17479

CAS Registry No.: 124001-41-8
Formal Name: N-(2-methyl-1-oxopropyl)-7-D-alanine-9-(N-methyl-L-leucinamide)-3-9-neuromedin C
MF: C₄₅H₆₅N₁₃O₈
FW: 916.1
Purity: ≥95%
UV/Vis.: λ_{max}: 218, 280, 290 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ICI 216140 is supplied as a crystalline solid. A stock solution may be made by dissolving the ICI 216140 in the solvent of choice, which should be purged with an inert gas. ICI 216140 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ICI 216140 in these solvents is approximately 2 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ICI 216140 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ICI 216140 in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Bombesin is a peptide, originally isolated from the skin of the European fire-bellied toad, with pressor and sympathoexcitatory activity. Its three receptors are distributed throughout the central and peripheral nervous system and are involved in gastric acid secretion, emotional response, temperature control, learning, and memory. Neuromedin B and gastrin-releasing peptide (GRP) are mammalian homologs of bombesin.¹ ICI 216140 is a GRP/bombesin receptor 2 antagonist (IC₅₀ = 2 nM *in vitro*).² At 2 mg/kg, it can reduce bombesin-stimulated pancreatic amylase secretion in rats.² At 1 mM, it has been shown to attenuate bombesin-stimulated increases in blood pressure in rats.³

References

1. Gonzalzel, N., Moody, T.W., Igarashi, H., *et al.* Bombesin-related peptides and their receptors: Recent advances in their role in physiology and disease states. *Curr. Opin. Endocrinol. Diabetes Obes.* **15**(1), 58-64 (2008).
2. Camble, R., Cotton, R., Dutta, A.S., *et al.* N-isobutyryl-His-Trp-Ala-Val-D-Ala-His-Leu-NHMe (ICI 216140) a potent *in vivo* antagonist analogue of bombesin/gastrin releasing peptide (BN/GRP) derived from the C-terminal sequence lacking the final methionine residue. *Life Sci.* **45**(17), 1521-1527 (1989).
3. Zogovic, B. and Pilowsky, P.M. Intrathecal bombesin is sympathoexcitatory and pressor in rat. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* **301**(5), R1486-R1494 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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