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: C_{45}H_{65}N_{13}O_{8}
FW: 916.1
Purity: ≥95%
UV/Vis.: \(\lambda_{\text{max}}\): 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 (IC\(_{50}\) = 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