PRODUCT INFORMATION



Antagonist G (trifluoroacetate salt)

Item No. 34425

Formal Name:	L-arginyl-D-tryptophyl-N-methyl-L-
	phenylalanyl-D-tryptophyl-L-leucyl-L-
	methioninamide, trifluoroacetate salt $(1 - 1)$
Synonyms:	Arg-D-Trp-N ^{me} Phe-D-Trp-Leu-Met-NH ₂ ,
	$[Arg^{6}, D-Trp^{7,9}, N^{me}Phe^{8}]$ -substance P (6-11)
MF:	$C_{49}H_{66}N_{12}O_6S \bullet XCF_3COOH$
FW:	951.2 H N N N N N N N N N
Purity:	≥98% ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢
UV/Vis.:	λ_{max} : 220 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
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Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Antagonist G (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the antagonist G (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Antagonist G (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of antagonist G (trifluoroacetate salt) in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Antagonist G (trifluoroacetate salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, antagonist G (trifluoroacetate salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Antagonist G (trifluoroacetate salt) has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Antagonist G is a neuropeptide antagonist.¹⁻³ It inhibits the binding of vasopressin to rat liver or Swiss 3T3 membranes (IC₅₀s = 3.5 and 2.2 μ M, respectively) and vasopressin-induced production of inositol phosphate in Swiss 3T3 fibroblasts (IC₅₀ = 1 μ M).¹ Antagonist G (50 μ M) induces apoptosis and the production of reactive oxygen species (ROS) in NCI H69 small cell lung cancer (SCLC) cells.² It reduces tumor growth in an NCI H69 mouse xenograft model when administered at a dose of 45 μ g/g.³

References

- 1. Seckl, M.J., Newman, R.H., Freemont, P.S., et al. Substance P-related antagonists inhibit vasopressin and bombesin but not 5'-3-O-(thio)triphosphate-stimulated inositol phosphate production in swiss 3T3 cells. J. Cell Physiol. 163(1), 87-95 (1995).
- 2. MacKinnon, A.C., Waters, C., Rahman, I., et al. [Arg⁶, D-Trp^{7,9}, N^{me}Phe⁸]-substance P (6-11) (antagonist G) induces AP-1 transcription and sensitizes cells to chemotherapy. Br. J. Cancer. 83(7), 941-948 (2000).
- 3. Langdon, S., Sethi, T., Ritchie, A., et al. Broad spectrum neuropeptide antagonists inhibit the growth of small cell lung cancer in vivo. Cancer Res. 52(16), 4554-4557 (1992).

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

SAFFTY 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.

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