TOCRIS
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Print Date: Jun 10th 2021

Certificate of Analysis

www.tocris.com

Product Name: **GR 64349** **Catalog No.: 1668** **Batch No.: 9**

CAS Number: 137593-52-3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{42}H_{68}N_{10}O_{11}S$

Batch Molecular Weight: 921.12

Physical Appearance: White lyophilised solid

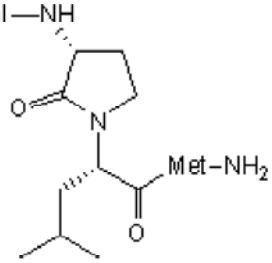
Net Peptide Content: 75%

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in water

Storage: Desiccate at -20°C

Peptide Sequence: Lys-Asp-Ser-Phe-Val—NH



2. ANALYTICAL DATA

HPLC: Shows 99% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	1.00	1.01
Arg			Met	1.00	1.01
Asx	1.00	0.99	Phe	1.00	0.95
Cys			Pro		
Glx			Ser	1.00	1.01
Gly			Thr		
His			Trp		
Ile			Tyr		
Leu			Val	1.00	1.02

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Product Information

Product Name: **GR 64349** **Catalog No.: 1668** **Batch No.: 9**

CAS Number: 137593-52-3

Description:

GR 64349 is a potent and selective tachykinin NK_2 receptor agonist (EC_{50} = 3.7 nM in rat colon). Displays > 1000- and > 300-fold selectivity over NK_1 and NK_3 receptors respectively. Active in vivo.

Physical and Chemical Properties:

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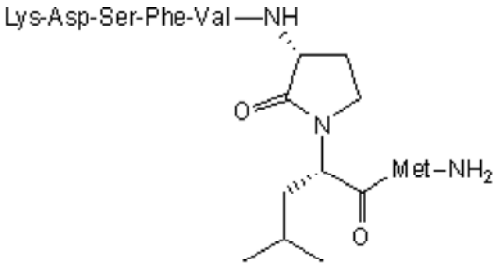

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Net Peptide Content: 75% (Remaining weight made up of counterions and residual water).

Counter Ion: TFA

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such Cys, Met,Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

Licensing Information:

Sold for research purposes under agreement from GlaxoSmithKline

References:

Chang *et al* (2000) Tachykinin receptor subtypes in the isolated guinea pig heart and their role in mediating responses to neurokinin A. J.Pharmacol.Exp.Ther. ***294*** 147. PMID: 10871306.

Chizh *et al* (1995) Endogenous modulation of excitatory amino acid responsiveness by tachykinin NK_1 and NK_2 receptors in the rat spinal cord. Br.J.Pharmacol. ***115*** 1013. PMID: 7582497.

Deal *et al* (1992) Conformationally constrained tachykinin analogues: potent and highly selective neurokinin NK-2 receptor agonists. J.Med.Chem. ***35*** 4195. PMID: 1331460.