

PRODUCT INFORMATION



Metastin (45-54)

Item No. 20905

CAS Registry No.: 374675-21-5
Formal Name: L-tyrosyl-L-asparaginyl-L-tryptophyl-L-asparaginyl-L-seryl-L-phenylalanyl-glycyl-L-leucyl-L-arginyl-L-phenylalaninamide

Synonyms: Kisspeptin-10 (human), Kp-10 (human)

MF: C₆₃H₈₃N₁₇O₁₄

FW: 1,302.5

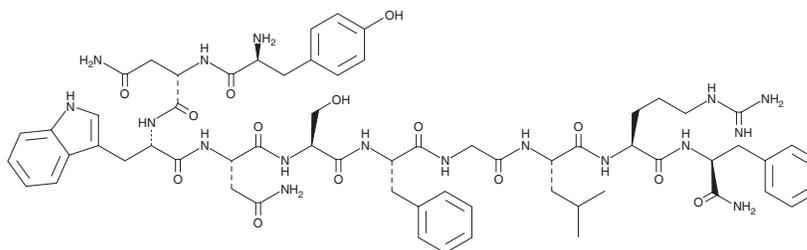
Purity: ≥98%

UV/Vis.: λ_{max}: 278 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

Metastin (45-54) is supplied as a crystalline solid. A stock solution may be made by dissolving the metastin (45-54) in the solvent of choice, which should be purged with an inert gas. Metastin (45-54) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of metastin (45-54) in these solvents is approximately 15 mg/ml.

Metastin (45-54) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, metastin (45-54) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Metastin (45-54) has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Metastin (45-54) is a 10 amino acid peptide that corresponds to the bioactive C-terminal 45-54 amino acids of metastin, a metastasis suppressor gene product.¹ It acts as a potent agonist of GPR54 (OT7T175, AXOR12), with approximately 8-fold higher binding affinity than metastin (K_i values of 0.042 and 0.34 nM, respectively, for displacement of metastin (40-54)).¹ Metastin (45-54) induces calcium mobilization in GPR54-transfected cells (EC₅₀ = 0.18-1.1 nM).² It inhibits the migration of GPR54-transfected CHO cells at concentrations of 10-100 nM, equaling the potency of full length metastin.³

References

- Ohtaki, T., Shintani, Y., Honda, S., *et al.* Metastasis suppressor gene *KiSS-1* encodes peptide ligand of a G-protein-coupled receptor. *Nature* **411(6837)**, 613-617 (2001).
- Tomita, K., Niida, A., Osishi, S., *et al.* Structure-activity relationship study on small peptidic GPR54 agonists. *Bioor. Med. Chem. Lett.* **14(22)**, 7595-7603 (2006).
- Hori, A., Honda, S., Asada, M., *et al.* Metastin suppresses the motility and growth of CHO cells transfected with its receptor. *Biochem. Biophys. Res. Commun.* **286(5)**, 958-963 (2001).

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.

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