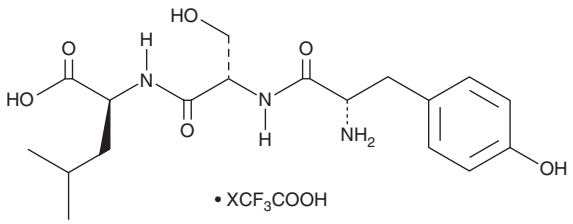
PRODUCT INFORMATION

Tyroserleutide (trifluoroacetate salt)

Item No. 46338

Formal Name: L-tyrosyl-L-seryl-L-leucine, trifluoroacetate salt
Peptide Sequence: YSL-OH
MF: $C_{18}H_{27}N_3O_6 \bullet XCF_3COOH$
FW: 381.4
Purity: ≥98%
Supplied as: A 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

Tyroserleutide is supplied as a solid. A stock solution may be made by dissolving the tyroserleutide in the solvent of choice, which should be purged with an inert gas. Tyroserleutide is sparingly soluble (1-10 mg/ml) in ethanol.

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 tyroserleutide can be prepared by directly dissolving the solid in aqueous buffers. Tyroserleutide is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Tyroserleutide is an antitumor tripeptide.[1-3] It inhibits the invasion of MHCC97-L hepatocellular carcinoma (HCC) cells at 100 µg/ml.[2] Tyroserleutide induces the production of IL-1β, TNF-α, and nitric oxide (NO) in isolated mouse peritoneal macrophages and enhances the cytotoxic effect of isolated mouse peritoneal macrophages against BEL-7402 HCC and B16/F10 melanoma cells.[3] It increases survival in an H22 murine hepatoma model at 10-80 µg/kg and decreases the rate of pulmonary metastasis in an MHCC97-L mouse xenograft model at 160 µg/kg.[1,2] Tyroserleutide also decreases radiation-induced increases in intratumoral levels of transmembrane serine protease 4 (TMPRSS4) and hypoxia-inducible factor 1α (HIF-1α) in an MHCC97-L mouse xenograft model.[2]

References

1. Wang, C., Ding, W., Zhao, M., *et al.* Studies on the large scale synthesis and anti-tumor activity of YSL. *Prep. Biochem. Biotechnol.* **33(3),** 189-195 (2003).
2. Jia, J.-B., Wang, W.-Q., Sun, H.-C., *et al.* A novel tripeptide, tyroserleutide, inhibits irradiation-induced invasiveness and metastasis of hepatocellular carcinoma in nude mice. *Invest. New Drugs* **29(5),** 861-872 (2011).
3. Yao, Z., Qiu, S., Wang, L., *et al.* Tripeptide tyroserleutide enhances the antitumor effects of macrophages and stimulates macrophage secretion of IL-1β, TNF-α, and NO in vitro. *Cancer Immunol. Immunother.* **55(1),** 56-60 (2006).

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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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM