

PRODUCT INFORMATION



Defensin NP-3A (60-93) (rabbit) (trifluoroacetate salt)

Item No. 41458

Formal Name:	glycyl-L-isoleucyl-L-cysteinyl-L-alanyl-L-cysteinyl-L-arginyl-L-arginyl-L-arginyl-L-phenylalanyl-L-cysteinyl-L-prolyl-L-asparaginyl-L-seryl-L- α -glutamyl-L-arginyl-L-phenylalanyl-L-serylglycyl-L-tyrosyl-L-cysteinyl-L-arginyl-L-valyl-L-asparaginylglycyl-L-alanyl-L-arginyl-L-tyrosyl-L-valyl-L-arginyl-L-cysteinyl-L-cysteinyl-L-seryl-L-arginyl-L-arginine, trifluoroacetate salt	H—Gly—Ile—Cys—Ala—Cys—Arg—Arg—Arg—Phe—Cys—
Synonyms:	Corticostatin 1, NP-3A	Pro—Asn—Ser—Glu—Arg—Phe—Ser—Gly—Tyr—Cys—
Peptide Sequence:	GICACRRRFFCPNSERFSGYCRVNGARYVRCCSRR-OH	Arg—Val—Asn—Gly—Ala—Arg—Tyr—Val—Arg—Cys—
MF:	$C_{163}H_{265}N_{63}O_{44}S_6 \cdot XCF_3COOH$	Cys—Ser—Arg—Arg—OH
FW:	4,003.7	$\cdot XCF_3COOH$
Purity:	$\geq 95\%$	
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

Defensin NP-3A (60-93) (rabbit) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the defensin NP-3A (60-93) (rabbit) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Defensin NP-3A (60-93) (rabbit) (trifluoroacetate salt) is sparingly soluble (1-10 mg/ml) in DMSO.

Defensin NP-3A (60-93) (rabbit) (trifluoroacetate salt) is slightly soluble (0.1-1 mg/ml) in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Defensin NP-3A (60-93) is an α -defensin peptide cleaved from a defensin precursor protein and secreted by granulocytes and involved in antimicrobial and immunomodulatory responses.^{1,2} It is active against *C. albicans* when used at a concentration of 10 μ g/ml. Defensin NP-3A (60-93), in combination with NP-1, NP-2, NP-3B, NP-4, and NP-5, induces leakage of high molecular weight dextrans and low molecular weight reporters in *E. coli* membrane mimics.³ It inhibits phagocytosis in primary mouse macrophages in a concentration-dependent manner.⁴ Defensin NP-3A (60-93) induces histamine secretion in primary rat mast cells ($EC_{50} = 70$ nM).⁵ It inhibits corticotropin-induced corticosterone production but does not decrease basal corticosterone levels in primary rat adrenal cells ($IC_{50} = 33$ pM).⁶

References

1. Selsted, M.E., Szklarek, D., Ganz, T., et al. *Infect. Immun.* **49(1)**, 202-206 (1985).
2. Ganz, T., Selsted, M.E., and Lehrer, R.I. *Eur. J. Haematol.* **44(1)**, 1-8 (1990).
3. Hristova, K., Selsted, M.E., and White, S.H. *J. Biol. Chem.* **272(39)**, 24224-24233 (1997).
4. Ichinose, M. and Sawada, M. *Microbiol. Immunol.* **39(5)**, 365-367 (1995).
5. Befus, A.D., Mowat, C., Gilchrist, M., et al. *J. Immunol.* **163(2)**, 947-953 (1999).
6. Zhu, Q.Z., Hu, J., Mulay, S., et al. *Proc. Natl. Acad. Sci. USA* **85(2)**, 592-596 (1988).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/09/2024

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