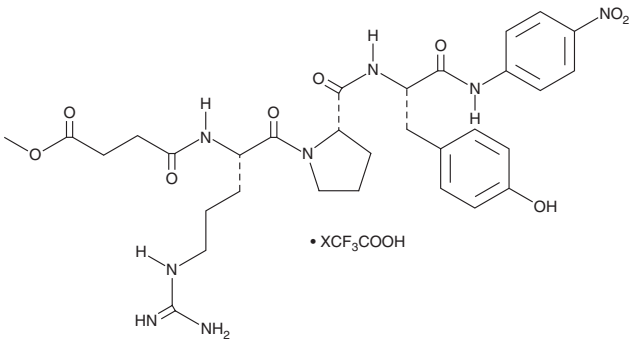
PRODUCT INFORMATION

MeO-Suc-RPY-*p*NA (trifluoroacetate salt)

Item No. 27706

Formal Name:	N^2-(4-methoxy-1,4-dioxobutyl)-L-arginyl-L-prolyl-N-(4-nitrophenyl)-L-tyrosinamide, trifluoroacetate salt
Synonyms:	Methoxy-Succinyl-Arg-Pro-Tyr-*p*NA, Methoxy-Succinyl-Arg-Pro-Tyr-*p*-nitroanilide, Serine Protease Chromogenic Substrate, S 2586
MF:	$C_{31}H_{40}N_8O_9$ • XCF3COOH
FW:	668.7
Purity:	≥95%
UV/Vis.:	λ_{max}: 225, 316 nm
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

MeO-Suc-RPY-*p*NA (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the MeO-Suc-RPY-*p*NA (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. MeO-Suc-RPY-*p*NA (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of MeO-Suc-RPY-*p*NA (trifluoroacetate salt) in these solvents is approximately 3 and 20 mg/ml, respectively.

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 MeO-Suc-RPY-*p*NA (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of MeO-Suc-RPY-*p*NA (trifluoroacetate salt) in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

MeO-Suc-RPY-*p*NA is a colorimetric substrate for serine proteases, including trypsin, chymotrypsin, kallikrein-related peptidase 7 (KLK7), and kallikrein-related peptidase 3/prostate-specific antigen.[1-3] Serine proteases preferentially bind to and cleave the Arg-Pro-Tyr (RPY) peptide sequence to release *p*-nitroanilide (*p*NA), which can be quantified by colorimetric detection at 405 nm as a measure of serine protease activity.

References

1. Saedi, M.S., Mikolajczyk, S.D., Grauer, L., *et al.* Methods to detect HK2 polypeptides. *Mayo Foundation for Medical Education and Research and Hybritech, Inc.* **EP 0 974 057 B1** (2005).
2. de Veer, S.J., Furio, L., Swedberg, J.E., *et al.* Selective substrates and inhibitors for kallikrein-related peptidase 7 (KLK7) shed light on KLK proteolytic activity in the stratum corneum. *J. Invest. Dermatol.* **137(2),** 430-439 (2017).
3. Clark, M.R., Aliyar, H.A., Lee, C.W., *et al.* Enzymatic triggered release of an HIV-1 entry inhibitor from prostate specific antigen degradable microparticles. *Int. J. Pharm.* **413(1-2),** 10-18 (2011).

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