

PRODUCT INFORMATION



D-Pro-Phe-Arg-pNA (hydrochloride)

Item No. 27569

CAS Registry No.: 62354-56-7
Formal Name: D-prolyl-L-phenylalanyl-N-(4-nitrophenyl)-L-argininamide, dihydrochloride

Synonyms: pFR-pNA, Plasma Kallikrein Chromogenic Substrate, D-Pro-Phe-Arg-p-nitroaniline

MF: C₂₆H₃₄N₈O₅ • 2HCl

FW: 611.5

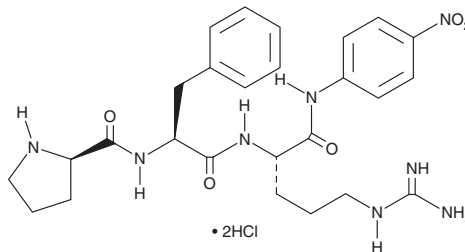
Purity: ≥95%

UV/Vis.: λ_{max}: 312 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

D-Pro-Phe-Arg-pNA (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the D-Pro-Phe-Arg-pNA (hydrochloride) in the solvent of choice, which should be purged with an inert gas. D-Pro-Phe-Arg-pNA (hydrochloride) is soluble in the organic solvent dimethyl formamide at a concentration of approximately 10 mg/ml.

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 D-Pro-Phe-Arg-pNA (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of D-Pro-Phe-Arg-pNA (hydrochloride) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

D-Pro-Phe-Arg-pNA is a colorimetric substrate for plasma kallikrein.¹ Plasma kallikrein preferentially binds to and cleaves the D-Pro-Phe-Arg (PFR) peptide sequence to release p-nitroanilide (pNA), which can be quantified by colorimetric detection at 405 nm as a measure of plasma kallikrein activity.

Reference

1. Tans, G., Rosing, J., Berrettini, M., *et al.* Autoactivation of human plasma prekallikrein. *J. Biol. Chem.* **262**(23), 11308-11314 (1987).

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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