

PRODUCT INFORMATION



N^α-Benzoyl-DL-Arginine-pNA (hydrochloride)

Item No. 33934

CAS Registry No.: 911-77-3

Formal Name: N-[4-[(aminoiminomethyl)amino]-1-[[[4-nitrophenyl]amino]carbonyl]butyl]-benzamide, monohydrochloride

Synonyms: N^α-Benzoyl-DL-Arginine-p-nitroanilide, DL-BAPNA, NSC 83264

MF: C₁₉H₂₂N₆O₄ • HCl

FW: 434.9

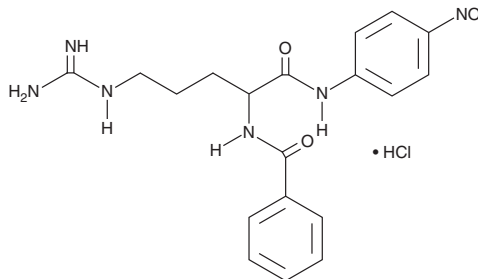
Purity: ≥98%

UV/Vis.: λ_{max}: 225, 312 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

N^α-Benzoyl-DL-arginine-pNA (DL-BAPNA) (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the DL-BAPNA (hydrochloride) in the solvent of choice, which should be purged with an inert gas. DL-BAPNA (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of DL-BAPNA (hydrochloride) in these solvents is approximately 10 and 1 mg/ml, respectively.

DL-BAPNA (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DL-BAPNA (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DL-BAPNA (hydrochloride) has a solubility of approximately 0.11 mg/ml in a 1:8 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

DL-BAPNA is a colorimetric substrate for serine proteases, including β-secretase 1 (BACE1), calpain, and papain.^{1,2} Serine proteases bind to and cleave DL-BAPNA to release p-nitroanilide (pNA), which can be quantified by colorimetric detection at 405 nm as a measure of serine protease activity.

References

1. Mancini, F., Naldi, M., Cavrini, V., *et al.* Multiwell fluorometric and colorimetric microassays for the evaluation of beta-secretase (BACE-1) inhibitors. *Anal. Bioanal. Chem.* **388**(5-6), 1175-1183 (2007).
2. Chung, M.-C., Lee, H.-J., Chun, H.K., *et al.* Penicillide, a nonpeptide calpain inhibitor, produced by *Penicillium* sp. F60760. *J. Microbiol. Biotechnol.* **8**(2), 188-190 (1998).

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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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