

PRODUCT INFORMATION

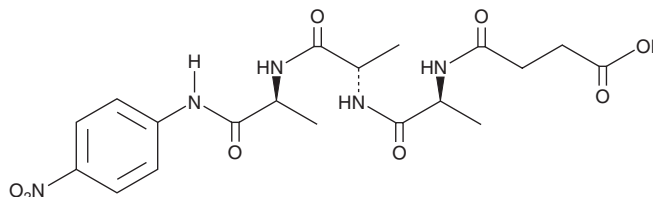


Suc-Ala-Ala-Ala-pNA

Item No. 36478

CAS Registry No.: 52299-14-6
Formal Name: N-(3-carboxy-1-oxopropyl)-L-alanyl-L-alanyl-N-(4-nitrophenyl)-L-alaninamide
Synonyms: Elastase Substrate VIII, Suc-AAA-pNA, Suc-AAA-p-nitroanilide, Suc-Ala-Ala-Ala-p-nitroanilide

MF: C₁₉H₂₅N₅O₈
FW: 451.4
Purity: ≥98%
UV/Vis.: λ_{max}: 222, 315 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

Suc-Ala-Ala-Ala-pNA is supplied as a solid. A stock solution may be made by dissolving the Suc-Ala-Ala-Ala-pNA in the solvent of choice, which should be purged with an inert gas. Suc-Ala-Ala-Ala-pNA is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of Suc-Ala-Ala-Ala-pNA in these solvents is approximately 5 and 3 mg/ml, respectively. Suc-Ala-Ala-Ala-pNA is slightly soluble 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 Suc-Ala-Ala-Ala-pNA can be prepared by directly dissolving the solid in aqueous buffers. The solubility of Suc-Ala-Ala-Ala-pNA in PBS (pH 7.2) is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Suc-Ala-Ala-Ala-pNA is a colorimetric substrate for elastase.^{1,2} Elastase binds and hydrolyzes Suc-Ala-Ala-Ala-pNA to release p-nitroanilide (pNA), which can be quantified by colorimetric detection at 405 nm as a measure of elastase activity.

References

1. El Maaiden, E., Bouzroud, S., Nasser, B., *et al.* A comparative study between conventional and advanced extraction techniques: Pharmaceutical and cosmetic properties of plant extracts. *Molecules* **27**(7), 2074 (2022).
2. Nadarajah, D., Atkinson, M.A.L., Huebner, P., *et al.* Enzyme kinetics and characterization of mouse pancreatic elastase. *Connect. Tissue Res.* **49**(6), 409-415 (2008).

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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