Calpain Inhibitor XII
Item No. 14466

CAS Registry No.: 181769-57-3
Formal Name: [3-methyl-1-[[1-[[1-oxo[(2-pyridinylmethyl)amino]acetyl]butyl]amino]carbonyl]butyl]-carbamic acid, phenylmethyl ester
Synonym: Z-L-Nva-CONH-CH2-2-Py
MF: C26H34N4O5
FW: 482.6
Purity: ≥90%
Stability: ≥2 years at −20°C.
Supplied as: A crystalline solid

Laboratory Procedures
For long term storage, we suggest that calpain inhibitor XII be stored as supplied at -20°C. It should be stable for at least two years.

Calpain inhibitor XII is supplied as a crystalline solid. A stock solution may be made by dissolving the calpain inhibitor XII in the solvent of choice. Calpain inhibitor XII is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of calpain inhibitor XII in ethanol and DMSO is approximately 16 mg/ml and approximately 20 mg/ml in DMF.

Calpain inhibitor XII is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, calpain inhibitor XII should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Calpain inhibitor XII has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Calpain inhibitor XII is a reversible and selective inhibitor of calpain I (μ-calpain, Kᵢ = 19 nM), with lower affinities for calpain II (m-calpain, Kᵢ = 120 nM) and cathepsin B (Kᵢ = 750 nM).1 Calpain inhibitors, including this compound, have been used to study the role of calpains in diverse processes, including neutrophil chemotaxis, neuronal signaling, and cardiac response to injury.2-5

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/14466

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to your institution.

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