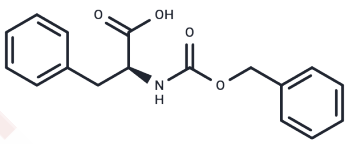
Data Sheet (Cat.No.T20485)

TargetMol

Carbobenzoxyphenylalanine

Chemical Properties



CAS No. : 1161-13-3

Formula: C17H17NO4

Molecular Weight: 299.32

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Carbobenzoxyphenylalanine (NSC-402059) is a thermolysin inhibitor.
Targets(IC50)	Others,Amino Acids and Derivatives
In vitro	The protease can be inhibited by the serine specific reagents phenylmethanesulfonyl fluoride and diisopropyl fluorophosphate and the alkylating reagent, carbobenzoxyphenylalanine chloromethyl ketone, in the presence of organic solvents at 1 mM concentration.?The inhibitions of chromatin-bound protease in rat liver by these compounds are irreversible.?On the other hand, carbobenzoxyphenylalanine and p-nitrophenyl acetate were shown to be reversible inhibitors of rat liver chromatin-bound protease[1].

Solubility Information

Solubility	DMSO: 60 mg/mL (200.45 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3409 mL	16.7045 mL	33.4091 mL
5 mM	0.6682 mL	3.3409 mL	6.6818 mL
10 mM	0.3341 mL	1.6705 mL	3.3409 mL
50 mM	0.0668 mL	0.3341 mL	0.6682 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Carter DB, Chae CB. Chromatin-bound protease: degradation of chromosomal proteins under chromatin dissociation conditions. Biochemistry. 1976 Jan 13;15(1):180-5. PubMed PMID: 2280.

Jany K D , Haug H , Pfleiderer G , et al. Enzymatic and chemical properties of an endopeptidase from the larva of the hornet Vespa crabro.[J]. Biochemistry, 1978, 17(22).

Ceruso M, Howe N, Malthouse JP. Mechanism of the binding of Z-L-tryptophan and Z-L-phenylalanine to thermolysin and stromelysin-1 in aqueous solutions. Biochim Biophys Acta. 2012 Feb;1824(2):303-10. doi: 10.1016/j.bbapap.2011.10.007. Epub 2011 Oct 19. PubMed PMID: 22037182.