

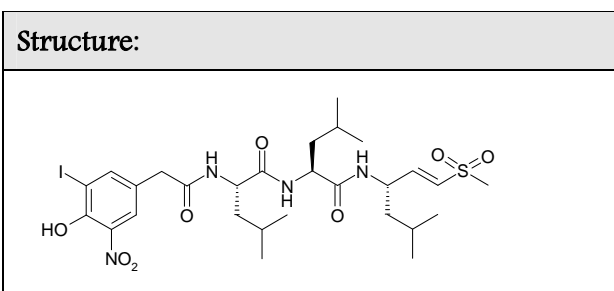
PRODUCT DATA SHEET



Product name(s):	4-Hydroxy-5-iodo-3-nitrophenylacetyl-L-leucyl-L-leucyl-L-leucinyl vinyl sulphone [NLVS]				
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Catalogue number:	NW8780	Batch number:	Z03944	Expiry date:	12/2004
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Product information:
The peptide vinyl sulphones covalently inhibit the trypsin-like, chymotrypsin-like and, unlike lactacystin, also the peptidylglutamyl peptidase (PGPH or caspase-like) activity in isolated proteasomes, and block their function in living cells, by covalent modification of the amino-terminal threonine of the catalytically-active beta subunits. The vinyl sulphone moiety acts as a Michael acceptor for soft nucleophiles such as thiols, leading to the formation of a covalent bond, while being resistant to attack by free thiols that can cause inactivation of other classes of protease inhibitors.



Molecular formula:	C ₂₈ H ₄₃ N ₄ O ₈ S
Molecular weight:	722.2
CAS number:	

Analytical and physico-chemical data:	
Melting point:	n/d
Purity:	>99% as adjudged by reverse-phase high performance liquid chromatography.
Spectroscopic analysis:	Ion spray mass spectrometry gives molecular ion consistent with desired molecular weight.
Form:	Bright yellow solid.
Solubility:	Soluble in both dimethyl sulphoxide (DMSO) at ≥ 50 mM and acetonitrile at ≤ 25 mM.

Stability, storage and specific hazard data:
Store solid cold and dry at -20C; stable for at least one year. Store solutions at -20C for up to three months.

References:
1. Bogyo, M., McMaster, J.S., Gaczynska, M., Tortorella, D., Goldberg, A.L. and Ploegh, H. Covalent modification of the active site threonine of proteasomal beta subunits and the Escherichia coli homolog HslV by a new class of inhibitors. <i>Proc. Natl. Acad. Sci. USA</i> , 94 , 6629-6634 (1997).

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