
Product Data Sheet

Product Name: Ac-Nle-Pro-Nle-Asp-AMC

Cat. No.: GC18371

Chemical Properties

Cas. No. 355140-49-7

Chemical Name N-acetyl-L-norleucyl-L-prolyl-L-norleucyl-N-(4-methyl-2-oxo-2H-1-benzopyran-7-yl)-L- α -asparagine

SMILES O=C1C=C(C2=C(O1)C=C(C=C2)NC([C@@H])(NC([C@@H](NC([C@@H]3CCCCN3C([C@@H](NC(C)=O)CCCC)=O)=O)CCCC)=O)CC(O)=O)=O)C

Formula C₃₃H₄₅N₅O₉ M.Wt 655.7

Solubility 20mg/ml in ethanol; 30mg/ml in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure **Background**

Ac-Nle-Pro-Nle-Asp-AMC is a substrate for proteasomes that is cleaved by the caspase-like site, also known as postglutamyl peptide hydrolase (PGPH), with specific activities of 113 and 6.6 nmol/min/mg by the 26S (rabbit muscle) and 20S (yeast) proteasomes, respectively. Caspase-like activity can be quantified by fluorescent detection of free AMC (also known as 7-amino-4-methylcoumarin), which is excited at 340-360 nm and emits at 440-460 nm. Ac-Nle-Pro-Nle-Asp-AMC inhibits the chymotrypsin-like activity of the proteasome allosterically when bound to the caspase-like site. It has been used to determine L-DOPA's effects on protein turnover rates.

Caution: Product has not been fully validated for medical applications. For research use only.

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