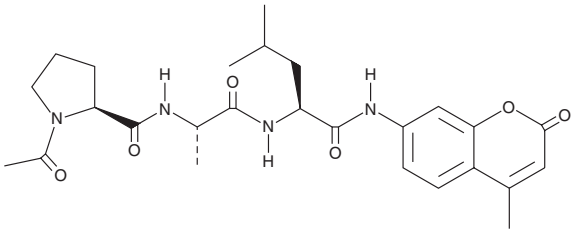
PRODUCT INFORMATION

Ac-PAL-AMC

Item No. 26592

CAS Registry No.: 1431362-79-6
Formal Name: 1-acetyl-L-prolyl-L-alanyl-N-(4-methyl-2-oxo-2H-1-benzopyran-7-yl)-L-leucinamide
Synonyms: Acetyl-Pro-Ala-Leu-7-amino-4-Methylcoumarin, Ac-Pro-Ala-Leu-AMC
MF: $C_{26}H_{34}N_4O_6$
FW: 498.6
Purity: ≥95%
Ex./Em. Max: 351/430 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

Ac-PAL-AMC is supplied as a solid. A stock solution may be made by dissolving the Ac-PAL-AMC in the solvent of choice, which should be purged with an inert gas. Ac-PAL-AMC is soluble in the organic solvent DMSO.

Description

Ac-PAL-AMC is a fluorogenic substrate for the β1i/LMP2 subunit of the 20S immunoproteasome.[1,2] Upon cleavage, 7-amino-4-methylcoumarin (AMC) is released and its fluorescence can be used to quantify the activity of the β1i/LMP2 subunit of the 20S immunoproteasome. Ac-PAL-AMC is selective for the immunoproteasome over the constitutive proteasome. AMC displays excitation/emission maxima of 351/430 nm, respectively.

References

1. Blackburn, C., Gigstad, K.M., Hales, P., *et al.* Characterization of a new series of non-covalent proteasome inhibitors with exquisite potency and selectivity for the 20S β5-subunit. *Biochem. J.* **430(3)**, 461-476 (2010).
2. Park, J.E., Ao, L., Miller, Z., *et al.* PSMB9 codon 60 polymorphisms have no impact on the activity of the immunoproteasome catalytic subunit B1i expressed in multiple types of solid cancer. *PLoS One* **8(9),** e73732 (2013).

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