

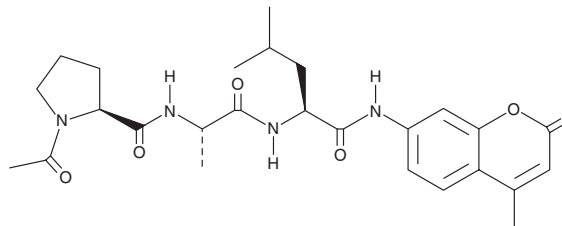
# PRODUCT INFORMATION



## 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<sub>26</sub>H<sub>34</sub>N<sub>4</sub>O<sub>6</sub>  
**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  $\beta$ 1i/LMP2 subunit of the 20S immunoproteasome.<sup>1,2</sup> Upon cleavage, 7-amino-4-methylcoumarin (AMC) is released and its fluorescence can be used to quantify the activity of the  $\beta$ 1i/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  $\beta$ 5-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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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