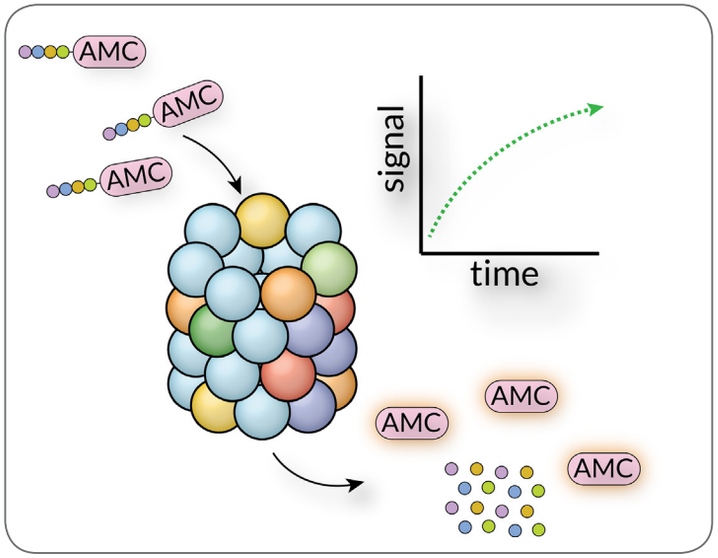
Ac-Pro-Ala-Leu-AMC

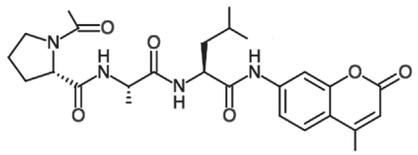
Cat. No. SBB-PS0007
Lot. No. 163060007

South Bay Bío

Ac-PAL-AMC

Ac-PAL-AMC (Acetyl-Pro-Ala-Leu-AMC) is a 7-amino-4-methylcoumarin labeled fluorogenic peptidyl substrate hydrolyzed by the ß1i subunit of the 20S immunoproteasome. Peptidylglutamyl-peptide hydrolyzing (Caspase-like) activity can be measured using a working concentration of 20-50µM substrate. This substrate is specific to the immunoproteasome, and is not hydrolyzed efficiently by the constitutive proteasome. Cleavage of this peptide by the immunoproteasome or other enzymes liberates the fluorophore AMC causing a strong fluorescent signal which is detected at an Excitation wavelength of 345nm and Emission wavelength of 445nm. 20S Proteasome enzyme requires activation with 0.035% SDS in the assay buffer.





Ac-PAL-AMC, Chemical Structure.
Structure of Ac-PAL-AMC, 498.6 Da, Ex=345nM, Em=445nM.

Product Information

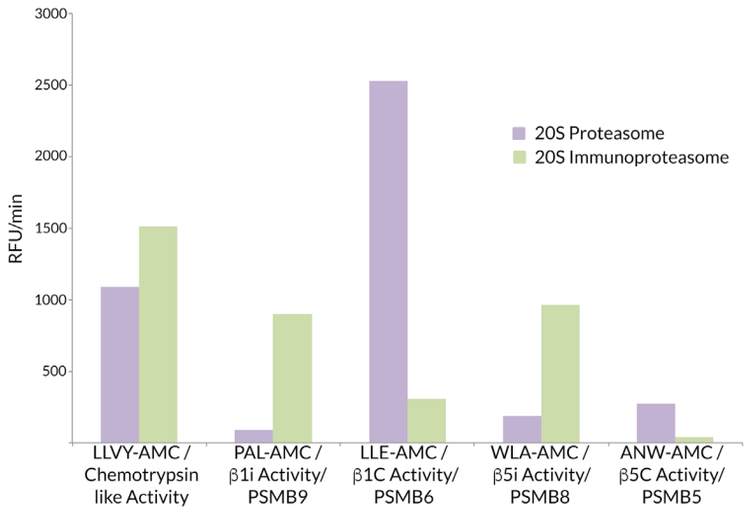
Quantity: 2 mg **Molecular Weight:** 498.6 Da

Concentration: Lyophilized **Purity:** >95% by HPLC

Solubility: 10mM in DMSO **Ex/Em (nm):** 345/445

Storage: Store at 4°C after product arrival. After preparing a stock in DMSO (≥10 mM) store product at -20°C to -80°C. It is recommended to make multiple aliquots after the first thaw to ensure best performance.

Quality Control and Performance Data



20S Immunoproteasome vs. 20S Constitutive Proteasome Activity.
PAL-AMC exhibits a high specific activity and preference for 20S immunoproteasome compared to constitutive 20S proteasome.

For Research Use Only, Not For Use In Humans.

www.southbaybio.com

Contact:
info@southbaybio.com

5941 Optical Ct, Suite 229
San Jose, CA 95138 USA

South Bay Bío

References

1) Park, Ji Eun, 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 (2013): e73732.

2) Miller, Zachary, et al. "Inhibitors of the immunoproteasome: current status and future directions." Current pharmaceutical design 19.22 (2013): 4140-4151.

3) Dubiella, Christian. Development and Characterization of Selective Immunoproteasome Inhibitors. Diss. Universität München, 2015.

For Research Use Only, Not For Use In Humans.

Contact:
info@southbaybio.com

5941 Optical Ct, Suite 229
San Jose, CA 95138 USA