

Ac-RGK(Ac)-AMC *Fluorogenic Peptide Substrate*

Catalog Number: ES016
Lot Number: RAJ09

Specifications and Use

- Sequence** ♦ Ac-Arg-Gly-Lys(Ac)-AMC (Ac-RGK(Ac)-AMC). Ac: Acetyl; 7-Amino-4-methylcoumarin.
- Molecular Mass** ♦ 600.7 Da.
- Purity** ♦ > 95% based on HPLC.
- Peptide Content** ♦ 81%
- Quantity** ♦ 5.0 mg. It is sufficient for approximately 250 assays using the substrate at 250 μ M and the volume at 100 μ L.
- Recommended Assay Conditions** ♦ A fluorescence plate reader with excitation at 380 nm and emission at 460 nm is recommended for the measurement of the enzymatic activity. Depending upon individual enzymes, the substrate can be used at the final concentrations between 100 to 500 μ M in a total of 100 μ L reaction mixture.
- Applications** ♦ Hydrolysis of Lys-AMC amide bond releases AMC, a highly fluorescent group.
♦ It is an excellent substrate for certain deacetylases such as histone deacetylases. After the enzymatic removal of the acetyl group, the substrate can be cleaved by trypsin-like enzymes. Please see the individual enzyme insert for the specific assay condition.
- Formulation** ♦ Supplied as a stock solution in dimethyl sulfoxide (DMSO) with a concentration of 14.8 mg/mL (without consideration of the peptide content) or 20 mM (with consideration of the peptide content).
♦ Centrifuge the vial before opening to recover entire contents of the vial. Due to possible sublimation during storage, the buffer volume may decrease over time, however, the product is sold by mass and the amount of substrate will remain constant. To ensure quantitative recovery, we suggest the stock solution be made in the original vial.
- Shipping** ♦ The substrate is shipped with ice packs. Upon receiving, store it immediately at the temperature recommended below.
- Storage** ♦ Samples are stable for up to six months from date of receipt at -20 °C to -70 °C **in a manual defrost freezer**.
♦ The substrate can be aliquoted and stored at -20 °C to -70 °C **in a manual defrost freezer** for six months.
♦ **Protect from exposure to direct light.**
♦ **Avoid repeated freeze-thaw cycles.**

Use of Ac-RGK(Ac)-AMC with R&D Systems' deacetylases

Protease	Catalog #
Recombinant Human HDAC8	4359-DA
Recombinant Human Sirtuin 2/SIRT2	4358-DA

FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

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