



***pERTKR-AMC***  
***Fluorogenic Peptide Substrate***

**Catalog Number: ES013**

**Lot Number: PYO01**

***Specifications and Use***

- Sequence** ♦ L-PyroGlu-Arg-Thr-Lys-Arg-AMC (pERTKR-AMC). 7-Amino-4-methylcoumarin.
- Molecular Mass** ♦ 827.94 Da.
- Purity** ♦ > 96% based on HPLC.
- Peptide Content** ♦ 67.3%.
- Quantity** ♦ 10 mg. It is sufficient for approximately 800 - 8,000 assays using the recommended conditions.
- 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 final concentrations between 10 - 100  $\mu$ M in a total of 100  $\mu$ L reaction mixture.
- Applications** ♦ Hydrolysis of Arg-AMC amide bond releases AMC, a highly fluorescent group.  
♦ It is an excellent substrate for furin-like proprotein convertases (see table below). Please see the individual enzyme insert for the specific assay condition.
- Formulation** ♦ Supplied as a stock solution in water with a concentration of 10 mg/mL or 8.13 mM.  
♦ 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 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° to -70° C **in a manual defrost freezer** for six months.  
♦ **Protect from exposure to direct light.**  
♦ **Avoid repeated freeze-thaw cycles.**

***Use of pERTKR with R&D Systems' Proteases***

Recombinant Protease	Catalog #
Human Furin	1503-SE
Human Proprotein Convertase 1/PCSK1	2810-SE
Human Proprotein Convertase 7/PCSK7	2984-SE
West Nile Virus NS3 Protease	2907-SE

FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

**R&D Systems, Inc.**  
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