

Boc-V-P-R-AMC
Fluorogenic Peptide Substrate

Catalog Number: ES011

Lot Number: NZY13

Specifications and Use

- Sequence** ♦ Boc-Val-Pro-Arg-AMC. Boc: t-Butyloxycarbonyl; 7-Amino-4-methylcoumarin.
- Molecular Mass** ♦ 627.74 Da.
- Purity** ♦ > 95% based on TLC.
- Peptide Content** ♦ 92.8%.
- Quantity** ♦ 20 mg. It is sufficient for approximately 2,700 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. The substrate can be used at the final concentration of 100 µM in a total of 100 µL reaction mixture.
- Applications** ♦ Hydrolysis of Arg-AMC amide bond releases AMC, a highly fluorescent group.
♦ It is an excellent substrate for many proteases (see table below).
- Formulation** ♦ Supplied as a stock solution in dimethyl sulfoxide (DMSO) with a concentration of 67.21 mg/mL or 99.4 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 it immediately at the temperature recommended below.
- Storage** ♦ Samples are stable for up to twelve months from date of receipt at -20° C to -70° C.
♦ 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 Boc-VPR-AMC with R&D Systems Proteases (rh: recombinant human)

Protease	Catalog #	Protease	Catalog #
hCoagulation Factor II/Thrombin (Plasma)	2196-SE	rhKLK5	1108-SE
rhCoagulation Factor II/Thrombin	1473-SE	rhKLK8	2025-SE
rhCoagulation Factor VII	2338-SE	rhKLK13	2625-SE
rhKLK4	1719-SE	rhKLK14	2626-SE