

Z-L-R-AMC
Fluorogenic Peptide Substrate VII

Catalog Number: ES008
Lot Number: IRH03

Specifications and Use

- Sequence** ♦ Z-Leu-Arg-AMC. Z: N-carbobenzyloxy; 7-Amino-4-methylcoumarin.
- Molecular Mass** ♦ 578 Da.
- Purity** ♦ 97.7% ± 1% based on high performance liquid chromatography.
- Peptide Content** ♦ 93.0%.
- Quantity** ♦ 10 mg. It is sufficient for approximately 13,500 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 10 μM in a total of 100 μL reaction mixture.
- Applications** ♦ The peptide substrate contains a highly fluorescent 7-amino-4-methyl coumarin (AMC) group that is efficiently quenched by the amide bond formed between its amino group and the carboxyl group of the Arg residue. It can be used to measure the activities of peptidases that are capable of cleaving this amide bond, causing an increase in fluorescence.
- ♦ It is an excellent substrate for many cathepsins. For example, it has been used to assay following recombinant human or mouse cathepsins (rhCathepsins or rmCathepsins) followed by Catalog # in parentheses: rhCathepsin B (953-CY), rmCathepsin B (965-CY), rhCathepsin L (952-CY), and rhCathepsin V (1080-CY).
- Formulation** ♦ Supplied as a stock solution in dimethyl sulfoxide (DMSO) with a concentration of 20 mg/mL or 27.7 mM.
- Shipping** ♦ The substrate is shipped with cold 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.
- ♦ Upon receiving, 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.**