



## Product Data Sheet

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<b>Product Name:</b>	Cathepsin S Substrate	
<b>Catalog Number:</b>	AS-61859 (1 mg)	Lot Number: See label on vial
<b>Sequence:</b>	Ac-Lys-Gln-Lys-Leu-Arg-AMC (3-letter code) Ac-KQKLR-AMC (1-letter code)	
<b>Molecular Weight:</b>	871.1	
<b>Peptide Purity:</b>	>95%	
<b>Appearance:</b>	Lyophilized white powder	

**Peptide Reconstitution:** Cathepsin S peptide is freely soluble in water.

**Storage:** Cathepsin S peptide is shipped at ambient temperature. Upon receipt, store lyophilized peptide at  $-20^{\circ}\text{C}$  or lower. Reconstituted peptide can be aliquoted and stored at  $-20^{\circ}\text{C}$  or lower.

**Description:** This peptide is a cathepsin S substrate fluorescently labeled with AMC (Ex/Em=354 nm/442 nm). It can be used to measure cathepsin S activity. Ref: Stroup, et al. *J. Bone Miner. Res.* **16**, 1739 (2001).

**Additional Information:** Listed below are relevant information that may provide a guideline on how to use this product. End users will have to adapt to their own specific applications.

To test the predictive capability of the substrate specificity profile obtained, authentic 7-amino-4-methyl coumarin (AMC) peptide substrates that were either “good” or “poor” matches to the profile were selected for screening in the protease activity assay described above. The range of substrate concentrations used was 3.5 to 300 $\mu\text{m}$ . The substrates were: Z-FR-AMC (Peptides International, Inc.), Z-Arg-Arg-AMC (Z-RR-AMC) (Peptides International, Inc.), Z-Arg-Glu-Lys-Arg-AMC (Z-REKR-AMC) (Bachem), Ac-Ile-Glu-Pro-Asp-AMC (Ac-IEPD-AMC) (Bachem), Ac-Ala-Ser-Thr-Asp-AMC (Ac-ASTD-AMC) (Bachem), Z-Leu-Arg-Gly-Gly-AMC (Z-LRGG-AMC) (Bachem), H-Arg-Gln-Arg-Arg-AMC (H-RQRR-AMC) (Bachem), Ac-Lys-Gln-Lys-Leu-Arg-AMC (Ac-KQKLR-AMC) (AnaSpec, Inc.)- [O'Brien, T. et al. \*J. Biol. Chem.\* \*\*283\*\*, 28934 \(2008\).](#)

### Published Citations:

O'Brien, T. et al. *J. Biol. Chem.* **283**, 28934 (2008).

### Related Products:

Name	Cat #	Size
Cathepsin K substrate	AS-62368	0.1 mg
Abz-HPGGPQ-EDDnp		

Cathepsin D and E FRET Substrate Mca-GKPILFFRLK(Dnp)-r-NH <sub>2</sub>	AS-61793	1 mg
SensoLyte® 440 Cathepsin S Assay Kit *Fluorimetric*	AS-72100	1 kit
SensoLyte® 520 Cathepsin S Assay Kit *Fluorimetric*	AS-72099	1 kit

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