

Cathepsin D & E substrate (fluorogenic)

Synthetic substrate useful for inhibitor screening and kinetic analysis

Quenched fluorogenic substrate for cathepsin D ($k_{\text{cat}}/K_m = 1.09 \times 10^4 \text{ M}^{-1}\text{s}^{-1}$) and cathepsin E ($k_{\text{cat}}/K_m = 1.56 \times 10^4 \text{ M}^{-1}\text{s}^{-1}$). Mca fluorescence is quenched by the Dnp group until cleavage separates them. Activity of the two enzymes on this substrate can be distinguished by the use of *Ascaris* pepsin inhibitor, which inhibits cathepsin E, but not cathepsin D. This substrate is also cleaved by MMP-2, MMP-3, MMP-9, but not MMP-1 nor MMP-13. This substrate is useful for inhibitor screening and kinetic analysis. Ex.: 320-340 nm, Em.: 393-420 nm. Mca-Pro-Leu-OH (BML-P127) can be used to calibrate for Mca fluorescence.

Citations: 25

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Ordering Information

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| | |
|---------------|-----|
| BML-P145-0001 | 1mg |
|---------------|-----|

Manuals, SDS & CofA

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Handling & Storage

| | |
|-------------------|--|
| Use/Stability | As indicated on product label or CoA when stored as recommended. |
| Handling | Protect from light. Keep cool and dry. |
| Long Term Storage | -20°C |
| Shipping | Blue Ice |

Regulatory Status

RUO - Research Use Only

Product Details

| | |
|-----------------|---|
| Appearance | Yellow powder |
| Formulation | Trifluoroacetate salt |
| MW | 1756.0 |
| Purity | ≥95% (HPLC) |
| Quality Control | Determined by MS. |
| Sequence | Mca-Gly-Lys-Pro-Ile-Leu-Phe-Phe-Arg-Leu-Lys(Dnp)-D-Arg-NH ₂ [Mca= (7-methoxycoumarin-4-yl)acetyl; Dnp=dinitrophenyl] |
| Solubility | Soluble in DMSO (1mM) or 50% acetonitrile (10mg/ml). |
| Source | Synthetic |

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