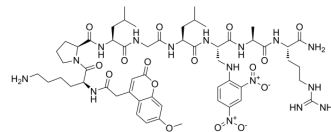


## Mca-Lys-Pro-Leu-Gly-Leu-Dap(Dnp)-Ala-Arg-NH<sub>2</sub>

<b>Cat. No.:</b>	HY-P4931
<b>CAS No.:</b>	720710-69-0
<b>Molecular Formula:</b>	C <sub>55</sub> H <sub>80</sub> N <sub>16</sub> O <sub>16</sub>
<b>Molecular Weight:</b>	1221.32
<b>Sequence:</b>	{Mca}-Lys-Pro-Leu-Gly-Leu-{Dap(Dnp)}-Ala-Arg-NH <sub>2</sub>
<b>Sequence Shortening:</b>	{Mca}-KPLGL-{Dap(Dnp)}-AR-NH <sub>2</sub>
<b>Target:</b>	MMP
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (81.88 mM; Need ultrasonic)				
	<b>Preparing Stock Solutions</b>	<b>Concentration</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>1 mM</b>	0.8188 mL	4.0939 mL	8.1879 mL
		<b>5 mM</b>	0.1638 mL	0.8188 mL	1.6376 mL
		<b>10 mM</b>	0.0819 mL	0.4094 mL	0.8188 mL
Please refer to the solubility information to select the appropriate solvent.					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Mca-Lys-Pro-Leu-Gly-Leu-Dap(Dnp)-Ala-Arg-NH <sub>2</sub> (FS-6) is a fluorescent peptide that is a quenched MMP peptide substrate. Mca-Lys-Pro-Leu-Gly-Leu-Dap(Dnp)-Ala-Arg-NH <sub>2</sub> can be used for real-time quantification of MMP enzymatic activity. Mca-Lys-Pro-Leu-Gly-Leu-Dap(Dnp)-Ala-Arg-NH <sub>2</sub> is an elongated peptide of MMP substrate (FS-1) and is active against collagenases (MMP-1, MMP-8, MMP-13) and MT1-MMP with higher specificity constants than FS-1 <sup>[1]</sup> . (Ex/Em=325 nm/400 nm)			
<b>IC<sub>50</sub> &amp; Target</b>	MMP-1 27.5 μM (Km)	MMP-8	MMP-13 5.2 μM (Km)	MMP-14 7.9 μM (Km)
<b>In Vitro</b>	Specificity of Mca-Lys-Pro-Leu-Gly-Leu-Dap(Dnp)-Ala-Arg-NH <sub>2</sub> for collagenases (MMP-1, MMP-8, MMP-13) and MT1-MMP (MMP-14) The constant (kcat/Km) increases by a factor of 2-9, or 3 times than FS-1 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			

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## REFERENCES

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[1]. Neumann U, et al. Characterization of Mca-Lys-Pro-Leu-Gly-Leu-Dpa-Ala-Arg-NH<sub>2</sub>, a fluorogenic substrate with increased specificity constants for collagenases and tumor necrosis factor converting enzyme. Anal Biochem. 2004 May 15;328(2):166-73.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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