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DATASHEET

MCA-AVLQSGFR-Lys(Dnp)-Lys-NH2

Product overview

Name	MCA-AVLQSGFR-Lys(Dnp)-Lys-NH2
Cat No	HB9059
Biological description	SARS-CoV Mpro FRET substrate. The MCA-AVLQSGFR-Lys(Dnp)-Lys-NH2 substrate sequence is derived from residues P4–P5' of the SARS-CoV Mpro N-terminal autoprocessing site (AVLQSGFRK). Enzymatic cleavage between Q4 and S5 of MCA-AVLQSGFR-Lys(Dnp)-Lys-NH2 releases the highly fluorescent 7-methoxycoumarin (Mca) group from the influence of the 2,4-dinitrophenyl (Dnp) internal quencher resulting in a large fluorescence intensity increase. This peptide is suitable to measure protease activity of the Mpro & SARS-CoV Mpro COVID-19 viruses in addition to other viruses.
Alternative names	SARS Main Protease FRET Substrate
Biological action	Peptide
Purity	>95%
Description	SARS-CoV Mpro FRET substrate suitable for measuring Mpro & SARS-Cov Mpro protease activity

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in DMSO
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Molecular Weight	1514.7
Molecular Formula	$C_{69}H_{99}N_{19}O_{15}$
Sequence (one letter)	Mca-AVLQSGFRK(Dnp)K-NH2
Sequence (three letter)	Mca-Ala-Val-Leu-Gln-Ser-Gly-Phe-Arg-Lys(Dnp)-Lys-NH2
CAS Number	932391-88-3

References

Structure of the main protease from a global infectious human coronavirus, HCoV-HKU1

Zhao Q *et al* (2008) J Virol 82(17)
PubMedID 18562531

Design of wide-spectrum inhibitors targeting coronavirus main proteases

Yang H *et al* (2005) PLoS Biol 3(10)
PubMedID 16128623