## The Cyclin-Dependent Kinase 5 Inhibitor Peptide Inhibits Herpes Simplex Virus Type 1 Replication

## Adrian Man <sup>1,2</sup>; Mark Slevin \*<sup>3,4</sup>, Eugen Petcu <sup>5</sup>, Cornel Fraefel <sup>1</sup>

- 1. Institute of Virology, University of Zurich, Zurich, Switzerland
- 2. Department of Microbiology, University of Medicine and Pharmacy of Tîrgu Mureş, Romania
- 3. University of Medicine and Pharmacy of Tîrgu Mureş, Romania
- 4. School of Healthcare Science, Manchester Metropolitan University, Manchester, UK
- 5. Griffith University, Gold Coast, Brisbane, Australia

\*Correspondence to: M.A.Slevin@mmu.ac.uk

10	20	30	40	50
MGTVLSLSPS	YRKATLFEDG	AATVGHYTAV	QNSKNAKDKN	LKRHSIISVL
60	70	80	90	100
PWKRIVAVSA	KKKNSKKVQP	NSSYQNNITH	LNNENLKKSL	SCANLST <b>FA</b> Q
110	120	130	140	150
PPPAQPPAPP	ASQLSGSQTG	GSSSVKKAPH	PAVTSAGTPK	RVIVQASTSE
160	170	180	190	200
LLRCLGEFLC	RRCYRLKHLS	PTDPVLWLRS	VDRSLLLQGW	QDQGFITPAN
210	220	230	240	250
VVFLYMLCRD	VISSEVGSDH	ELQAVLLTCL	YLSYSYMGNE	ISYPLKPFLV
260	270	280	290	300
ESCKEAFWDR	CLSVINLMSS	KMLQINADPH	YFTQVFSDLK	NESGQEDKKR
307				
LLLGLDR				
■ p10 ■ p25	■ CIP			

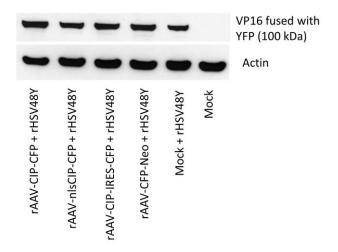
CIP gene sequence (direct strand +):

TGCCTGGGTGAGTTTCTCTGCCGCCGGTGCTACCGCCTGAAGCACCTGTCCCCCACGGACCCCGT
GCTCTGGCTGCCAGCGTGGACCGCTCGCTGCTTCTGCAGGGCTGGCAGGACCAGGGCTTCATCA
CGCCGGCCAACGTGGTCTTCCTCTACATGCTCTGCAGGGATGTTATCTCCTCCGAGGTGGGCTCG
GATCACGAGCTCCAGGCCGTCCTGCTGACATGCCTGTACCTCTCCTACCTCCTACATGGGCAACGA
GATCTCCTACCCGCTCAAGCCCTTCCTGGTGGAGAGCTGCAAGGAGGCCTTTTTGGGACCGTTGCC
TCTCTGTCATCAACCTCATGAGCTCAAAGATGCTGCAGATAAATGCCGACCCAT

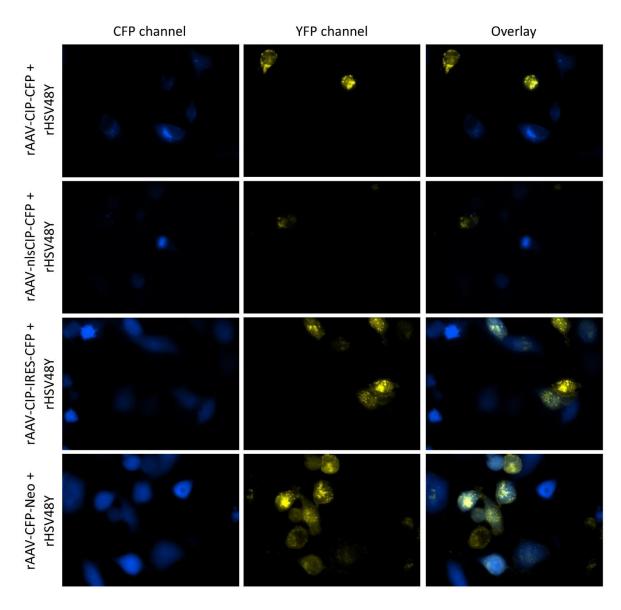
Supplemental Figure 1. CIP structure. CIP is a 125 aminoacid peptide with a molecular weight of 12.5 kDa.

	(A) RT-PCR results					(B) qRT-PCR results						
100							es	ıte	CT values			
~								Cell lines	Replicate	rAAV-CIP-CFP	rAAV-nlsCIP-CFP	rAAV-CIP-IRES-CFP
W									1	29.73	33.71	31.19
								HeLa	2	27.43	31.38	28.94
						3	28.57		32.56	30.06		
910	**							+ -1	1	30.59	34.09	31.67
	AAV-CIP-CFP AAV-CIP-Neo Mock MAAV-CIP-CFP							HeLa + wtHSV-1	2	30.39	34.35	31.78
8		윤	AAV-CIP-IRES-CFP AAV-CFP-Neo	한	<b>∓</b> ≱	3	30.06	33.50	31.12			
AAV-CIP-GFP	AAV-CIP-IRES	Mock	AAV-CIP-CFP	N-CIP-I	AAV-CFP-Neo	HeLa Mock	pAAV-CIP-CFP	293T	1	22.41	27.00	23.79
A		Σ	¥			H			2	22.30	26.83	23.79
	HeLa 293T						3	21.83	26.41	23.22		

Supplemental Figure 2. Data showing PCR results for CIP expression by electrophoresis of the RT-PCR products (A) or by qRT-PCR CT values (B).



Supplemental Figure 3 (cropped image). Western-blot for HeLa cells co-infected with rAAV vectors and rHSV48Y.



Supplemental Figure 4. Suggestive images from epifluorescence microscopy following the coinfection of rAAV-CIP vectors and rHSV48Y