

表13 NP-2/GFP細胞を用いたシュードPGの抗HIV-1活性と細胞融合抑制活性

Code	IC <sub>50</sub> ( $\mu$ g/ml) *1				CC <sub>50</sub> ( $\mu$ g/ml)	Selectivity index CC <sub>50</sub> /IC <sub>50</sub>			
	Infection		Coculture			Infection		Coculture	
	BaL	IIIB	HeLa/M- env/Tat	HeLaKS38 6		BaL	IIIB	HeLa/M- env/Tat	HeLaKS386
H7	>100	>100	ND *2	ND	>100	<1	<1	ND	ND
H8	>147.5	>147.5	ND	ND	>100	<0.8	<0.8	ND	ND
H18	>100	>100	>100	>100	>100	<1	<1	<1	<1
P2	>100	>100	>100	>100	>100	<1	<1	<1	<1
P3	>1	>1	>1	>1	35	<35	<35	<35	<35
P4	>1	>1	>1	>1	25	<25	<25	<25	<25
P7	>6	>6	ND	ND	55	<16.7	<16.7	ND	ND
P8	>1300	>1300	ND	ND	>100	<0.08	<0.08	ND	ND
P2H18	>100	>100	>100	>100	>100	<1	<1	<1	<1
P3H18	3	3	>100	>100	>100	>33	>33	<1	<1
P4H18	2	0.5	60	>100	>100	>50	>200	>1.7	<1
P4H7	3.8	1.2	>100	>100	>100	>26	>83	<1	<1
P4H8	2	0.6	ND	ND	>100	>50	>167	ND	ND
P7H18	6	1.5	ND	ND	>100	>17	>67	ND	ND
P7H7	0.02	0.01	3	>100	>100	>5000	>10000	>33	<1
P8H7	>38.5	>38.5	ND	ND	>100	<2.6	<2.6	ND	ND
H19	>100	>100	ND	ND	>100	<1	<1	ND	ND
H16	>100	>100	ND	ND	>100	<1	<1	ND	ND
H17	>100	>100	ND	ND	>100	<1	<1	ND	ND
H13	>100	>100	ND	ND	>100	<1	<1	ND	ND
P4H16	>100	1	>100	>100	10-100	<1	10-100	<1	<1
P4H17	>100	>100	ND	ND	1-10	<0.1	<0.1	ND	ND
P4H13	>100	>100	ND	ND	10-100	<1	<1	ND	ND
H15	>100	>100	ND	ND	>100	<1	<1	ND	ND
Sulfated H15	5.7	1	>100	>100	>100	>18	>100	<1	<1
P4H15	21	7	>100	>100	>100	>5	>14	<1	<1
Sulfated P4H15	>100	>100	ND	ND	>100	<1	<1	ND	ND
P4 with sulfation step	>100	>100	ND	ND	10-100	<1	<1	ND	ND
High-sulfated H7	>100	5.3	>100	>100	>100	<1	>19	<1	<1
Low-sulfated H7	>100	10	>100	>100	>100	<1	>10	<1	<1
High-sulfated P4H7	>100	>100	>100	>100	>100	<1	<1	<1	<1
Low-sulfated P4H7	>100	33	>100	>100	>100	<1	>3	<1	<1
acetylated P4H18	>100	50	ND	ND	>100	<1	>2	ND	ND
acetylated P4H8	>28	20	ND	ND	>100	<4	>5	ND	ND
acetylated P7H18	35	6	ND	ND	>100	>3	>17	ND	ND
acetylated P8H7	>46.5	>46.5	ND	ND	>100	<2	<2	ND	ND
AZT	0.02	0.02	>100	>100	>100	>5000	>5000	<1	<1
Heparin	70.0	0.3	ND	ND	>100	>1	>333	ND	ND
DS50k	6.7	0.21	>100	4	>100	>15	>476	<1	>25
DS8k	0.14	0.02	>100	>100	>100	>714	>5000	<1	<1

\*1 PLLは骨格分子濃度、GAG鎖及びシュードPGは多糖濃度で算出。\*2 ND (Not done)

表 14. 薬剤耐性ウイルス交差耐性試験

サンプル名	IC100 ( $\mu$ g/ml)		
	III B	RT r	PR r
P4	NE	NE	NE
P7	NE	NE	NE
H7	NE	NE	NE
H7P4	3.2	2.9	4.8
H7P7	0.64	0.54	0.77

RT r : 逆転写酵素阻害剤耐性ウイルス、PR r : プロテアーゼ阻害剤耐性ウイルス、NE: 効果無し

図 11 シュードPGの感染抑制活性

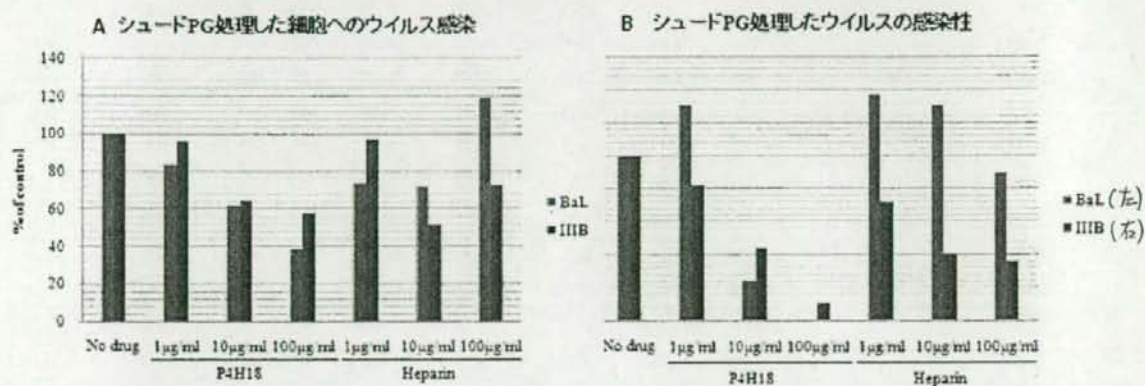


図 12 シュードPGのHIV-1吸着および侵入阻害効果

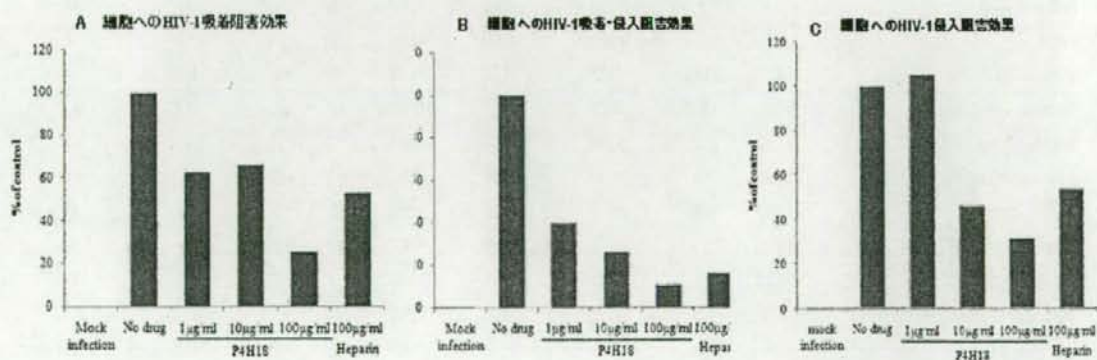


表15 シュードPGのPre-treatment, Treatment, Post-treatmentにおける巨細胞形成への影響

P4H18(1000 $\mu$ g/ml)	Giant cell formation
before 3days	2+
before 2days	2+
before 1day	2+
before 1hours	2+
at infection	—
after 4 hours	1+
control	2+

図 13 シュードPGによるHIV-1 Env V3領域への結合阻害効果

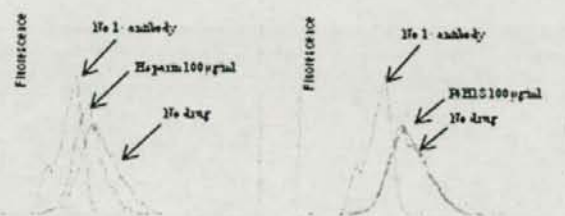


表16 シュードPGのMOLT4/IIIB細胞からのHIV-1産生への影響

Sample	IC <sub>50</sub> ( $\mu$ g/ml)	CC <sub>50</sub> ( $\mu$ g/ml)
P2	>100	>100
P3	10* <sup>1</sup>	25
P4	2.5* <sup>1</sup>	6
H18	>100	>100
P2H18	>1.4	>1.4
P3H18	>4.6	>4.6
P4H18	>15.4	>15.4
N-buDNJ N-butyl deoxynojirmycin (positive control)	20	>100

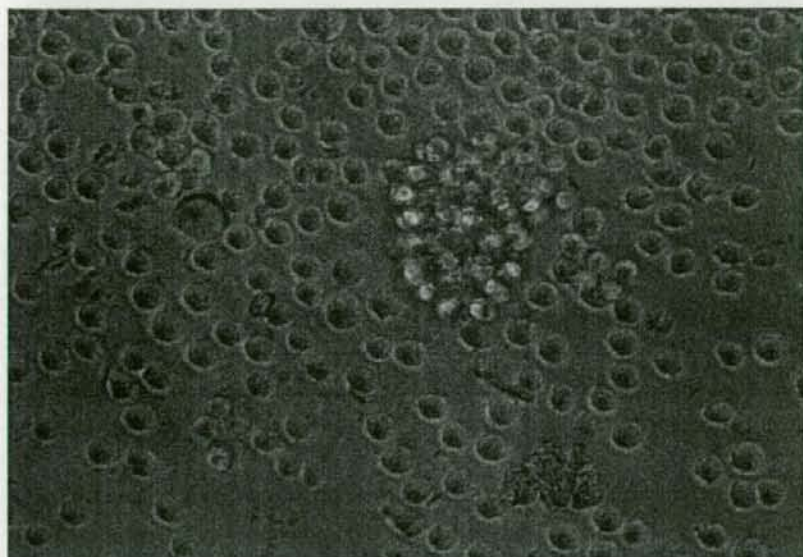
\*1 薬剤によるMOLT-4/IIIB細胞への毒性によりウイルス産生細胞数が減少し、HIV-1産生に影響が出た



表17 シュードPGの逆転写酵素阻害活性

Sample	100%innhibition
P4: PLL (15-30 k)	100 $\mu$ g/ml
H18: dextran10 (T10)	>1000 $\mu$ g/ml
P4H18: PLL(15-30 k)-dextran T10 (10 k) fraction 58-67	1 $\mu$ /ml

図14 PPG感作ラテックスによるHIV-1感染細胞 (MOLT4/IIIB) の凝集能 (40X)



## 研究成果の刊行に関する一覧表

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