

Table 1. Late genes of P2-like phages. — brought to you by www.thebacteriophages.org & www.phage.org

P2		186		φCTX		HP1 / HP2		K139		Similar genes	Function
Gene	Codons	Gene	Codons	Gene	Codons	Gene	Codons	Gene	Codons		
				ctx	286						Toxin
Q	↑ 344	Orf2	↑ 340	Q	350	Orf15	345/345	Orf15	348	Ec67 Orf5	Capsid portal protein
-		W	248								
P	● 590	Orf12	● 589	P	594	Orf16	607/607	Orf16	605	Ec67 Orf6	Large terminase subunit
O	● 284	V	● 284	O	273	Orf17	298/297	Orf17	299	ΦHs Orf1	Capsid scaffold
N	357	T	355	N	338	Orf18	336/336	Orf18	341	ΦHs Orf2	Major capsid precursor
M	247	R	249	M	235	Orf19	281/279	Orf19	238	ΦHs Orf3	Small terminase subunit
L	169	Q	168	L	153	Orf20	150/150	Orf20	153	ΦHs Orf4	Capsid completion
				Orf7	65						
X	67	Orf23	67	X	69					Pyocin R Orf22 ΦHs Orf5	Tail
Y	93	Orf24	98								Lysis - holin
						Orf21	166/161	Orf21	162		
								Orf23	53		
						Orf23	376/376	Orf24	369		Tail sheath
						Orf24	150/144	Orf25	152		Tail tube
								Orf26	69		P2 Orf82
								Orf27	75		
						hol	78/78			ΦHs Orf6	Lysis - holin
K	165	P	165			lys	186/179	Orf28	195	ΦHs Orf7, λ R	Lysis - endolysin
lysA	141										Lysis - timing
				Orf9	117						
				Orf10	90						
				Orf11	268						
lysB	141	Orf27	137	lysB	153						Lysis - timing
Orf		Orf28	96	Orf12.5	89						
R	155	N	155	R	178					ΦHs Orf10	Tail completion
S	√ 150	O	149	S	156	Orf22	227/231	Orf22	166	ΦHs Orf11	Tail completion
				Orf15	242						
Orf30	♣ 261										
V	● 211	Orf32	213	V	190					Pyocin R Orf11	Tail spike
W	115	M	115	W	114					Pyocin R Orf12	Baseplate
J	302	L	302	J	304					Pyocin R Orf13	Baseplate/tail fiber
I	176	Orf38	176	I	178					Pyocin R Orf14	Tail
						Orf25	115/115				
								Orf29	116		Signal peptide
						Orf26	102/102	Orf30	192		Signal peptide
						Orf28	111/111	Orf32	110		
						Orf29	393/382	Orf33	399		
						Orf30	174/175	Orf34	219		
H	669	K	462	H	762	Orf31	925/910	Orf35	620	Pyocin R Orf15	Tail fiber
G	√ 175	Orf45	√ 166			Orf32	200/210			Mu gene U	Tail fiber assembly
Z/fun	♣ 528										Lysogenic conversion
								Orf36	174		Tail fiber assembly
				Orf21	148						
FI	● 396	J	● 392	FI	391					Pyocin R Orf17	Tail sheath
FII	√ 172	I	173	FII	171					Pyocin R Orf18	Tail tube
E+E	142	H	162	E	108						
E	91	Orf52	58	E'	39						
T	815	G	812	T	904	Orf27	689/709	Orf31	605		Tail
U	159	F	161	U	146					Pyocin R Orf21	Tail
D	387	D	389	D	424					Pyocin R Orf23	Tail
				Orf28	295						
				Orf29	170						
				Orf30	116						
				Orf31	38						
				Orf32	60						
				Orf33	156						
						Orf33	258/255	Orf37	297		
						Orf34	187/186	Orf38	157		
						Orf35	533/533	Orf39	543		
ogr	♣ 72	B	♣ 72	ogr	97						Late promoter activator