

<b>Gene</b>	<b>Position</b>	<b>Length AA</b>	<b>Blastp Search/e value</b>	<b>Function</b>	<b>Comments</b>	<b>Direct Comparison to T7, % A.A. Identity</b>
<b>0.3</b>	1114- 1623	169	K1-5/1e-40	Antirestriction		50
<b>orf49</b>	1623- 1772	49				
<b>orf55</b>	1840- 2007	55				
<b>0.6</b>	2011- 2208	65	$\Phi$ YeO3-12/ 7.5			
<b>1.0</b>	2566- 5247	893	T7 RNAP/ 0.0	RNAP		64
<b>orf71</b>	5262- 5477	71				
<b>1.3</b>	6096- 7118	340	T7 Ligase/ 5e- 91	Ligase		56
<b>1.6</b>	7230- 7487	85	T3 1.6/1e-07			33
<b>1.7</b>	7484- 7930	148	T7 1.7/2e-50			67
<b>orf75</b>	7942- 8169	75				
<b>1.8</b>	8250- 8348	32	T7 1.8/0.004			50
<b>2.0</b>	8345- 8503	52	T3 2.0/7e-12	Inhibits Host RNAP		42
<b>2.5</b>	8624- 9259	211	$\Phi$ YeO3-12/ 2e-35	Single Strand DNA binding protein.		46
<b>3.0</b>	9259- 9711	150	$\Phi$ YeO3-12/ 4e-49	Endonuclease		52
<b>orf156</b>	9708- 10178	156				
<b>3.5</b>	10172- 10630	152	$\Phi$ YeO3-12/ 1e-57	Lysozyme		68
<b>orf71b</b>	10655- 10870	71				
<b>4.0</b>	10939- 12699	586	$\Phi$ YeO3-12/ 0.0	Primase/Helicase		64
<b>5.0</b>	12921- 15690	723	$\Phi$ YeO3-12/ 0.0	DNAP	Group 1 intron	58

					inserted between 14937- 15534
<b><i>orf131</i></b>	15019- 15414	131	I-TsII [Bacteriophage Phi I]/4e-42	Homing endonuclease	77% identical to I-TsII
<b>5.5</b>	15690- 15938	82	$\Phi$ YeO3-12/ 1e-04		26
<b>5.7</b>	15978- 16187	69	T7/ 5e-26		77
<b>6</b>	16184- 17050	288	$\Phi$ YeO3-12/ 2e-86	Exonuclease	52
<b>6.5</b>	17261- 17533	90	T7/ 3e-09		33
<b>6.7</b>	17548- 17772	74	T7/ 8e-08		49
<b><i>orf122</i></b>	17813- 18181	122			
<b>7.3</b>	18174- 18422	82	T3/8e-10		41
<b>8.0</b>	18434- 20002	522	T7/ 0.0	Head to Tail	67
<b>9.0</b>	20111- 20995	294	$\Phi$ A1122/2e-50	Scaffold	45
<b>10.0</b>	21136- 22179	347	gh-1/1e-122	Capsid	
<b>11.0</b>	22373- 22939	188	gh-1/9e-42	Tail Tube	47
<b>12.0</b>	22939- 25296	785	gh-1/0.0	Tail Tube	52
<b>13.0</b>	25373- 25843	156	T3/8e-24	Internal Virion	47
<b>14.0</b>	25828- 26415	195	gh-1/5e-43	Internal Virion	40
<b>15.0</b>	26427- 28709	760	T7/0.0	Internal Virion	45
<b>16.0</b>	28714- 32601	1295	T7/0.0	Internal Virion	51
<b>17.0</b>	32666- 35860	1064	K1F Endosialidase	Tail Protein	Sequence previously reported.
<b>17.5</b>	35994- 36188	64	Ye03-12/2e-16	Lysis	63

<b><i>18</i></b>	36185- 36448	87	Gh/2e-12	maturation	44
<b><i>18.5</i></b>	36551- 37000	149	ΦA1122/2e-34	lysis	
<b><i>19.0</i></b>	37030- 38757	575	gh-1/0.0	maturation	66
<b><i>orf34</i></b>	38787- 38891	34			

Table 1. Open reading frames in K1F.