

brought to you by www.thebacteriophages.org & www.phage.org

Table 27-1. Virion structure and assembly genes of bacteriophage λ .

gene	size of protein (amino acids)	in virion?	copies	function, special features
<i>Nu1</i>	181	N		small terminase subunit: DNA packaging
<i>A</i>	641	N		large terminase subunit: DNA packaging
<i>W</i>	68	Y	~6	adaptor between portal and gpFII
<i>B</i>	533	Y*	12	portal (*21 aa cleaved from N-terminus of most subunits)
<i>C</i>	439	Y*	~10	protease (*processed into X1 and X2)
<i>Nu3</i>	131	N		scaffolding protein
<i>D</i>	110	Y	405	major capsid decoration protein
<i>E</i>	341	Y	405	major capsid subunit
<i>FI</i>	132	N		accessory role in DNA packaging
<i>FII</i>	117	Y	~6	forms tail attachment site on head
<i>Z</i>	192	?		head-tail assembly
<i>U</i>	131	Y	~6	tail shaft stabilization
<i>V</i>	246	Y	192	major tail subunit
<i>G</i>	140	N		tail assembly chaperone
<i>T</i>	279*	N		extension, by translational frameshift, of gpG tail assembly chaperone (*size given is for G-T frameshift product)
<i>H</i>	853*	Y	~6	tail length tape measure protein (*~100 aa removed during tail maturation)
<i>M</i>	109	Y?		tail tip assembly
<i>L</i>	232	Y?		tail tip assembly
<i>K</i>	199	N?		tail tip assembly
<i>I</i>	223	N?		tail tip assembly
<i>J</i>	1132	Y	~3	tail tip assembly, central tail fiber
<i>stf</i>	774	Y	12	side tail fiber, main structural component
<i>tfa</i>	194	Y	12	side tail fiber, assembly factor and structural component