

Predicted Function/Motif	VACV-COP	VACV-DUKE					ACAM2000			VACV-CLONE3		
		Ortholog	Fragment	ORF	Length	Start	Stop	ORF	Length	%Ident	ORF	Length
Virion core ES	E11L		75	129	62116	62505	78	129	100	78	129	100
Unknown (Cop-O1L)	O1L		76	666	62492	64492	79	666	99.55	79	666	99.85
Glutaredoxin 1 (Cop-O2L)	O2L		77	108	64532	64858	80	108	100	80	108	100
DNA-binding protein (Cop-I1L)	I1L		78	312	65004	65942	81	312	99.68	81	312	99.36
Unknown (Cop-I2L)	I2L		79	73	65949	66170	82	73	95.89	82	73	97.26
DNA-binding phosphoprotein (Cop-I3L)	I3L		80	269	66171	66980	83	269	100	83	269	100
Ribonucleotide Reductase large subunit	I4L		81	771	67063	69378	84	771	100	84	771	99.87
IMV protein VP13	I5L		82	79	69405	69644	85	79	100	85	79	100
Telomere-Binding protein	I6L		83	382	69663	70811	86	382	99.74	86	382	99.74
Virion Core Protease	I7L		84	423	70804	72075	87	423	100	87	423	100
RNA helicase/NPH-II	I8R		85	676	72081	74111	88	676	99.7	88	676	99.85
Predicted metallo-protease (Cop-G1L)	G1L		86	591	74115	75890	89	591	100	89	591	100
VLTF (late transcription elongation factor - Cop-G2R)	G2R		87	220	76216	76878	91	220	99.09	91	220	99.09
Unknown (Cop-G3L)	G3L		88	111	75887	76222	90	111	100	90	111	100
Glutaredoxin 2 (Cop-G4L)	G4R		89	124	76848	77222	92	124	100	92	124	100
Unknown (Cop-G5R)	G5R		90	434	77225	78529	93	434	98.62	93	434	98.62
RNA pol (RPO7)	G5.5R		91	63	78537	78728	94	63	100	94	63	100
Unknown (Cop-G6R)	G6R		92	165	78730	79227	95	165	97.58	95	165	96.97
Structural protein (Cop-G7L)	G7L		93	371	79192	80307	96	371	100	96	371	100
VLTF-1 (Cop-G8R)	G8R		94	260	80338	81120	97	260	100	97	260	100
Myristylated protein (Cop-G9R)	G9R		95	340	81140	82162	98	340	100	98	340	100
Myristylated MP IMV (Cop-L1R)	L1R		96	250	82163	82915	99	250	100	99	250	100
Unknown (Cop-L2R)	L2R		97	85	82947	83204	100	85	100	100	85	100
Unknown (Cop-L3L)	L3L		98	350	83194	84246	101	350	100	101	350	100
Core package/transcription	L4R		99	251	84271	85026	102	251	100	102	251	99.6
Putative MP (Cop-L5R)	L5R		100	128	85036	85422	103	128	100	103	128	100
Virion (Cop-J1R)	J1R		101	153	85379	85840	104	153	98.69	104	153	98.69
Thymidine kinase	J2R		102	177	85856	86389	105	177	100	105	177	100
Poly(A) polymerase-small (VP39)	J3R		103	333	86455	87456	106	333	100	106	333	100
RNA pol (RPO22)	J4R		104	185	87371	87928	107	185	100	107	185	100
Late Es MP (Cop-J5L)	J5L		105	133	87990	88391	108	133	100	108	133	100
RNA pol (RPO147)	J6R		106	1286	88498	92358	109	1286	99.92	109	1286	99.92
Tyr/Ser phosphatase	H1L		107	171	92355	92870	110	171	100	110	171	100
component of fusion complex	H2R		108	189	92884	93453	111	189	100	111	189	100
IMV morphogenesis	H3L		109	324	93456	94430	112	324	100	112	318	98.15
RAP94 (RNA pol assoc protein)	H4L		110	795	94431	96818	113	795	99.87	113	795	99.87
VLTF-4 (late transcription factor 4)	H5R		111	203	97004	97615	114	203	100	114	203	100
Topoisomerase type I	H6R		112	314	97616	98560	115	314	100	115	314	100
Unknown (Cop-H7R)	H7R		113	146	98597	99037	116	146	97.95	116	146	98.63
Large capping enzyme	D1R		114	844	99081	101615	117	844	99.88	117	844	100
Virion Core (Cop-D2L)	D2L		115	146	101574	102014	118	146	100	118	146	100
Virion core (Cop-D3R)	D3R		116	237	102007	102720	119	237	100	119	237	99.58
Uracil-DNA glycosylase	D4R		117	218	102720	103376	120	218	100	120	218	100
NTPase, DNA replication	D5R		118	785	103408	105765	121	785	100	121	785	100
Morph, VETF-s (early transcription factor small)	D6R		119	637	105806	107719	122	637	100	122	637	100