

Vaccinia Copenhagen gene	Putative function
A2L	Transcription factor VLTF-3
A3L	Viral core protein P4b
A5R	RNA-pol subunit 19
A7L	VETF subunit
A10L	Viral core protein precursor P4a
A11R	Involved in morphogenesis
A16L	Myristylated membrane protein
A18R	DNA helicase
A24R	RNA-pol subunit 132
A29L	RNA-pol subunit 35
A32L	ATPase
D5R	NTPase
D6R	VETF subunit
D12L	mRNA capping enzyme subunit
E1L	Poly-A polymerase subunit
E6R	Unknown IMV protein
E9L	DNA polymerase
E10R	Sulfhydryl oxidase
F10L	Serine/threonine kinase
G5R	Involved in membrane formation
G9R	Myristylated membrane protein
H2R	Unknown IMV protein
H6R	DNA topoisomerase type IB
I7L	Viral core cysteine proteinase
I8R	RNA helicase
J5L	IMV membrane protein
J6R	RNA-pol subunit 147
L3L	Unknown IMV protein

Supplementary Table 1. Details of 28 genes present in single copy in all 104 genomes considered in this study.