

**Table S1.** Genome annotation of the European chub iridovirus.

ORF	Position (nt range)	Product (AA)	size	Predicted function and conserved domain or signature	Best BLASTP hit <sup>a</sup>		
					Description	E-value	Accession no.
1	1-1,125	374		Transmembrane amino acid transporter protein	ORF_082R [Scale drop disease virus]	4.10E-166	YP_009163843
2	1,792-2,103	103		Hypothetical protein			
3	2,247-3,512	421		Ankyrin repeat-containing protein	ORF_083L [Scale drop disease virus]	1.73E-116	YP_009163844
4	3,399-4,328	309		Ankyrin repeat-containing protein	ORF_084R [Scale drop disease virus]	1.01E-128	YP_009163845
5	4,304-4,696	130		Hypothetical protein			
6	4,774-6,267	497		mRNA capping enzyme	putative RNA guanylytransferase [Infectious spleen and kidney necrosis virus]	9.84E-145	NP_612286
7	6,280-6,909	209		Thymidylate kinase	ORF_089L [Scale drop disease virus]	3.30E-35	YP_009163850
8	7,117-7,587	156		Hypothetical protein	hypothetical protein [South American cichlid iridovirus]	7.00E-10	AVR29722
9	7,928-8635	235		Src homology 2 (SH2) domain-containing protein	ORF_117L [Scale drop disease virus]	1.86E-08	YP_009163878
10	8,987-9,760	257		Ribonuclease III	ORF_025R [Scale drop disease virus]	4.54E-130	YP_009163786
11	9,776-10,213	145		Hypothetical product	ORF_024R [Scale drop disease virus]	2.20E-70	YP_009163785
12	10,220-10,762	180		Hypothetical protein	ORF_023R [Scale drop disease virus]	3.92E-29	YP_009163784
13	10,858-11,235	125		Hypothetical protein	ORF_021L [Scale drop disease virus]	5.46E-26	YP_009163782

Table S1. Continued.

ORF	Position (nt range)	Product size (AA)	Predicted function and conserved domain or signature	Best BLAST hit <sup>a</sup>		
				Description	E-value	Accession no.
14	11,281-11,568	95	Hypothetical protein	ORF_019L [Scale drop disease virus]	3.42E-38	YP_009163780
15	11,630-12,970	446	Hypothetical protein	ORF_072R [Scale drop disease virus]	4.82E-21	YP_009163833
16	12,980-13,555	191	Short chain dehydrogenase	ORF_071R [Scale drop disease virus]	5.15E-79	YP_009163832
17	13,552-16,491	979	DNA polymerase family B	ORF_070R [Scale drop disease virus]	0	YP_009163831
18	17,113-17,412	99	Hypothetical protein			
19	17,427-18,056	209	Hypothetical protein	ORF_069L [Scale drop disease virus]	8.38E-86	YP_009163830
20	18,059-18,406	115	Hypothetical protein	ORF_119R [Scale drop disease virus]	3.48E-48	YP_009163880
21	18,440-19,240	266	Hypothetical protein	ORF_118L [Scale drop disease virus]	8.77E-54	YP_009163879
22	19,304-22,435	1043	DNA-dependent RNA polymerase II second largest subunit	ORF_122L [Scale drop disease virus]	0	YP_009163883
23	23,065-24,636	523	Myristylated membrane protein	ORF_061L [Scale drop disease virus]	0	YP_009163822
24	24,675-26,084	469	Hypothetical protein	ORF_062R [Scale drop disease virus]	3.78E-93	YP_009163823
25	26,604-27,050	136	Hypothetical protein	ORF_063L [Scale drop disease virus]	6.39E-33	YP_009163824
26	27,351-27,665	104	RING E3 ubiquitin ligase	ORF_064R [Scale drop disease virus]	3.44E-37	YP_009163825
27	27,761-29,290	509	Serine/threonine kinase	ORF_065R [Scale drop disease virus]	5.56E-164	YP_009163826

Table S1. Continued.

ORF	Position (nt range)	Product size (AA)	Predicted function and conserved domain or signature	Best BLAST hit <sup>a</sup>		
				Description	E-value	Accession no.
28	29,352-29,678	108	Hypothetical protein	ORF_066L [Scale drop disease virus]	9.29E-36	YP_009163827
29	29,699-31,576	625	Macro domain-containing protein	ORF_067R [Scale drop disease virus]	0	YP_009163828
30	31,586-32,428	280	IKI3 family protein	ORF_068R [Scale drop disease virus]	4.28E-127	YP_009163829
31	32,611-33,624	337	Serpin (serine protease inhibitor)	ORF_097L [Scale drop disease virus]	2.92E-71	YP_009163858
32	33,711-34,373	220	Hypothetical protein	ORF_075R [Scale drop disease virus]	3.99E-118	YP_009163836
33	34,709-35,614	301	Hypothetical protein	062L [Cherax quadricarinatus iridovirus]	2.50E-13	ASZ85042
34	36,131-36,550	139	SAP domain-containing protein	ORF_027L [Scale drop disease virus]	2.10E-63	YP_009163788
35	36,571-37,101	176	Macro domain-containing protein	PREDICTED: O-acetyl-ADP-ribose deacetylase 1 [Nothobranchius furzeri]	2.67E-60	XP_015823954
36	37,175-38,845	556	Hypothetical protein	ORF_028R [Scale drop disease virus]	0	YP_009163789
37	38,894-39,520	208	Hypothetical protein	ORF_054R [Scale drop disease virus]	1.08E-11	YP_009163815
38	29,676-41,655	659	Hypothetical protein	ORF_128R [Scale drop disease virus]	6.66E-68	YP_009163889
39	41,661-43,334	557	Hypothetical protein	ORF_127R [Scale drop disease virus]	1.35E-134	YP_009163888
40	43,382-43,615	77	Hypothetical protein	ORF_126R [Scale drop disease virus]	2.40E-29	YP_009163887
41	44,385-45,743	452	Major capsid protein	ORF_060L [Scale drop disease virus]	0	YP_009163821

Table S1. Continued.

ORF	Position (nt range)	Product size (AA)	Predicted function and conserved domain or signature	Best BLAST hit <sup>a</sup>		
				Description	E-value	Accession no.
42	47,071-47,508	145	Hypothetical protein	ORF_110R [Scale drop disease virus]	2.10E-47	YP_009163871
43	47,581-47,940	119	Hypothetical protein	ORF_058R [Scale drop disease virus]	3.34E-27	YP_009163819
44	47,947-49,368	473	Ankyrin repeat-containing protein	ORF_108R [Scale drop disease virus]	8.73E-104	YP_009163869
45	49,385-49,918	177	Hypothetical protein	hypothetical protein [Pompano iridovirus]	5.22E-52	AZQ20780
46	49,964-51,400	478	Ankyrin repeat-containing protein	ORF_107L [Scale drop disease virus]	5.49E-70	YP_009163868
47	51,653-53,059	468	Ankyrin repeat-containing protein	ORF_116R [Scale drop disease virus]	4.45E-60	YP_009163877
48	53,570-54,124	184	Hypothetical protein	hypothetical protein LCDV1gp087 [Lymphocystis disease virus 1]	1.86E-04	NP_078741
49	54,277-54,615	112	HIRAN domain-containing protein	hypothetical protein K493DRAFT_308693 [Basidiobolus meristosporus CBS 931.73]	5.67E-09	ORX78499
50	54,662-55,636	324	Proteasome accessory factor (PafA2)	ORF_031L [Scale drop disease virus]	1.12E-97	YP_009163792
51	55,790-56,881	363	Hypothetical protein	ORF_030L [Scale drop disease virus]	2.12E-157	YP_009163791
52	56,884-57,417	177	Hypothetical protein	ORF_029L [Scale drop disease virus]	1.01E-57	YP_009163790
53	57,527-58,447	306	Hypothetical protein	ORF_055R [Scale drop disease virus]	6.15E-79	YP_009163816

Table S1. Continued.

ORF	Position (nt range)	Product size (AA)	Predicted function and conserved domain or signature	Best BLAST hit <sup>a</sup>		
				Description	E-value	Accession no.
54	58,582-59,580	332	Ribonucleotide reductase beta subunit	ribonucleoside-diphosphate reductase subunit M2-like [Oncorhynchus kisutch]	1.04E-177	XP_020351890
55	59,967-60,746	259	Deoxyribonuclease 1	deoxyribonuclease-1-like [Acanthochromis polyacanthus]	5.49E-95	XP_022075590
56	60,743-61,357	204	Hypothetical protein	ORF_086R [Scale drop disease virus]	5.22E-59	YP_009163847
57	62,124-63,071	315	Serpin (serine protease inhibitor)	ORF_045R [Scale drop disease virus]	5.69E-77	YP_009163806
58	63,574-64,605	343	Hypothetical protein			
59	64,984-70,611	1875	Hypothetical protein	ORF_105L [Scale drop disease virus]	0	YP_009163866
60	70,631-73,369	912	DEAD-like helicase	ORF_104L [Scale drop disease virus]	0	YP_009163865
61	73,898-74,617	239	RING E3 ubiquitin ligase	ORF_103L [Scale drop disease virus]	2.82E-10	YP_009163864
62	74,655-74,972	105	RING E3 ubiquitin ligase	ORF_102L [Scale drop disease virus]	4.26E-45	YP_009163863
63	74,891-75,322	143	Ankyrin repeat-containing protein	ORF_100L [Scale drop disease virus]	8.64E-40	YP_009163861
64	75,327-75,890	187	NIF/NLI interacting factor	ORF_099L [Scale drop disease virus]	7.30E-95	YP_009163860
65	76,300-77,688	462	Hypothetical protein			
66	77,695-79,245	516	Chromosome segregation protein			

Table S1. Continued.

ORF	Position (nt range)	Product size (AA)	Predicted function and conserved domain or signature	Best BLAST hit <sup>a</sup>		
				Description	E-value	Accession no.
67	79,473-80,582	369	Hypothetical protein	ORF_002R [Scale drop disease virus]	1.67E-53	YP_009163763
68	81,271-81,627	118	Erv1/Alr family protein	ORF_003L [Scale drop disease virus]	4.17E-66	YP_009163764
69	81,631-83,097	488	Hypothetical protein	ORF_004L [Scale drop disease virus]	3.54E-70	YP_009163765
70	83,111-84,664	517	Hypothetical protein	ORF_005L [Scale drop disease virus]	2.21E-59	YP_009163766
71	84,657-85,352	231	Cytosine methyltransferase	DNA cytosine DNA methyltransferase [Three spot gourami iridovirus]	1.77E-91	AVR29817
72	85,931-86,302	123	Hypothetical protein	ORF_010R [Scale drop disease virus]	1.25E-46	YP_009163771
73	86,299-86,694	131	Vascular endothelial growth factors	ORF_011R [Scale drop disease virus]	1.12E-14	YP_009163772
74	86,954-87,358	134	Bcl-2 family apoptosis regulator protein	ORF_013L [Scale drop disease virus]	1.69E-28	YP_009163774
75	87,622-88,560	312	2-cysteine adaptor domain-containing protein	ORF_014L [Scale drop disease virus]	9.82E-105	YP_009163775
76	88,572-89,417	281	2-cysteine adaptor domain-containing protein	ORF_015L [Scale drop disease virus]	4.28E-77	YP_009163776
77	89,426-90,061	211	Hypothetical protein	ORF_016L [Scale drop disease virus]	8.91E-118	YP_009163777
78	90,440-90,721	93	Hypothetical protein	hypothetical protein ORF_099R [Red seabream iridovirus]	2.27E-09	BAK14229
79	90,718-91,569	283	Transcription factor	ORF_017L [Scale drop disease virus]	5.21E-149	YP_009163778

Table S1. Continued.

ORF	Position (nt range)	Product size (AA)	Predicted function and conserved domain or signature	Best BLAST hit <sup>a</sup>		
				Description	E-value	Accession no.
80	91,580-92,371	263	Hypothetical protein	ORF_018L [Scale drop disease virus]	9.20E-91	YP_009163779
81	92,373-94,754	793	Hypothetical protein	ORF_018L [Scale drop disease virus]	1.07E-129	YP_009163779
82	95,308-95,658	116	Hypothetical protein			
83	95,663-96,217	184	Hypothetical protein	ORF_059R [Scale drop disease virus]	9.16E-13	YP_009163820
84	96,473-96,709	78	Ubiquitin family protein	40S ribosomal protein S27a [Cyberlindnera jadinii]	2.47E-41	CEP23256
85	97,430-100,306	988	Hypothetical protein	ORF_091L [Scale drop disease virus]	0	YP_009163852
86	100,334-100,831	165	Hypothetical protein	ORF_092R [Scale drop disease virus]	1.04E-51	YP_009163853
87	100,837-101,337	166	Hypothetical protein	ORF_093R [Scale drop disease virus]	8.74E-47	YP_009163854
88	101,374-102,555	393	Hypothetical protein	ORF_094L [Scale drop disease virus]	8.14E-150	YP_009163855
89	102,845-103,927	354	Hypothetical protein			
90	104,437-107,211	924	D5 family NTPase	ORF_040R [Scale drop disease virus]	0	YP_009163801
91	107,140-107,964	274	Proliferating cell nuclear antigen	ORF_039L [Scale drop disease virus]	6.23E-161	YP_009163800
92	108,026-109,318	430	Ankyrin repeat-containing protein	ORF_115R [Scale drop disease virus]	2.45E-28	YP_009163876
93	109,488-110,072	194	Hypothetical protein	ORF_038R [Scale drop disease virus]	1.47E-103	YP_009163799

Table S1. Continued.

ORF	Position (nt range)	Product size (AA)	Predicted function and conserved domain or signature	Best BLAST hit <sup>a</sup>		
				Description	E-value	Accession no.
94	110,026-112,656	876	Tyrosine kinase	ORF_O37R [Scale drop disease virus]	0	YP_009163798
95	112,747-113,784	345	Immediate early protein ICP-46	ORF_036L [Scale drop disease virus]	1.68E-153	YP_009163797
96	113,790-114,512	240	ATPase	ORF_035L [Scale drop disease virus]	1.83E-158	YP_009163796
97	114,614-115,201	195	US22 protein	uncharacterized protein LOC109953611 isoform X1 [Monopterus albus]	1.38E-24	XP_020444743
98	115,441-116,145	234	Hypothetical protein	ORF_034R [Scale drop disease virus]	2.06E-122	YP_009163795
99	116,199-117,629	476	Ankyrin repeat-containing protein	ORF_116R [Scale drop disease virus]	3.35E-51	YP_009163877
100	117,681-118,499	272	Hypothetical protein	ORF_033L [Scale drop disease virus]	3.48E-103	YP_009163794
101	118,506-119,699	397	Hypothetical protein	ORF_032L [Scale drop disease virus]	2.41E-119	YP_009163793
102	119,855-121,282	475	Ankyrin repeat-containing protein	ORF_116R [Scale drop disease virus]	1.34E-70	YP_009163877
103	121,342-122,253	303	Flap endonuclease	ORF_073L [Scale drop disease virus]	9.10E-164	YP_009163834
104	122,276-125,833	1185	DNA-dependent RNA polymerase II largest subunit	ORF_076L [Scale drop disease virus]	0	YP_009163837
105	125,823-126,683	286	Hypothetical protein	ORF_078L [Scale drop disease virus]	1.22E-71	YP_009163839
106	126,705-127,223	172	Hypothetical protein	ORF_079R [Scale drop disease virus]	2.48E-87	YP_009163840



Table S1. Continued.

ORF	Position (nt range)	Product size (AA)	Predicted function and conserved domain or signature	Best BLAST hit <sup>a</sup>			E-value	Accession no.	
				Description					
107	127,232- 127,735	167	Hypothetical protein	ORF_080R	[Scale	drop	disease	7.32E-62	YP_009163841
108	127,722- 128,210	162	Hypothetical protein	ORF_081R	[Scale	drop	disease	5.93E-50	YP_009163842

<sup>a</sup>Significant hits based on NCBI BLASTP analyses

Abbreviations: nt, nucleotides; AA, amino acids

