

S8 Table. Nucleotide (below diagonal) and amino acid (above diagonal) sequence identities (%) of polyprotein (PP).

Isolate	Genbank Accession No.	CTLV-IPPN122	CTLV-TL100	CTLV-TL101	CTLV-TL102	CTLV-TL103	CTLV-TL104	CTLV-TL110	CTLV-TL111	CTLV-TL113	CTLV-TL114	CTLV-TL115	CTLV-MTH	CTLV-XHC	CTLV-Pk	CTLV-Ponkan8	CTLV-ML	CTLV-Kumquat1	CTLV-LcDNA-1	CTLV-Shatang Orange	CTLV-HJY	CTLV-ASGV-1HJY	CTLV-ASGV-2HJY	CTLV-L	ASGV-Li-23	ASGV-P-209	ASGV-p12	ASGV-AC	ASGV-HH	ASGV-241KP	ASGV-Matsuo	ASGV-FKSS2	ASGV-N297	ASGV-Kiyomi	ASGV-Nagami	ASGV-kfp	ASGV-AC	ASGV-CHN	ASGV-YTG	ASGV-YTG	ASGV-HT	PBNLSV
CTLV-IPPN122	MH108986	86.24	86.34	86.29	86.13	86.83	86.13	86.13	86.02	86.13	86.34	86.18	89.40	84.95	86.08	86.08	86.13	85.81	85.97	85.65	85.76	86.88	90.73	86.08	85.76	89.66	82.55	85.59	87.68	89.66	85.81	87.52	87.04	86.24	89.77	83.46	86.67	86.88	87.09	84.47	84.20	
CTLV-TL100	MH108975	80.62	99.25	98.92	98.66	94.27	98.66	94.27	98.66	87.04	86.34	86.40	93.73	86.24	85.81	86.40	86.40	98.66	86.45	86.99	86.24	86.61	87.20	86.18	85.49	85.27	86.40	83.62	86.40	86.40	86.40	86.72	86.61	86.93	94.00	86.99	84.00	86.13	85.43	85.86	83.88	84.36
CTLV-TL101	MH108976	80.71	98.89	99.25	98.98	94.43	98.98	98.98	98.98	86.88	86.34	86.50	93.79	86.13	85.70	86.40	86.40	98.98	86.50	86.83	86.24	86.45	87.20	86.13	85.38	85.11	86.18	83.57	86.24	86.34	86.18	86.61	86.40	86.77	94.16	86.93	83.95	86.02	85.38	85.70	83.88	84.20
CTLV-TL102	MH108977	80.67	98.60	98.85	98.55	94.21	98.55	98.55	98.55	86.56	85.97	86.34	93.68	85.86	85.49	86.02	86.02	98.55	86.40	86.50	86.08	86.34	87.20	86.29	85.33	85.05	86.13	83.46	86.13	86.29	86.13	86.29	86.34	86.50	93.95	86.88	83.79	85.86	85.33	85.70	83.72	84.15
CTLV-TL103	MH108978	80.67	98.41	98.62	98.26	94.27	100.00	100.00	100.00	86.72	86.24	86.29	93.73	85.97	85.65	86.29	86.29	100.00	86.34	86.67	86.18	86.40	86.77	86.08	85.38	85.01	86.24	83.41	86.08	86.02	86.24	86.67	86.34	86.56	94.11	87.09	83.68	85.92	85.06	85.49	83.77	84.04
CTLV-TL104	MH108979	80.38	92.02	92.32	92.09	91.97	94.27	94.27	94.27	86.18	86.24	86.24	97.05	86.61	85.27	86.29	86.29	94.27	86.13	86.13	85.92	86.24	87.68	86.67	85.22	84.74	86.61	83.57	86.24	86.08	86.61	86.29	86.83	86.72	97.37	87.36	84.16	86.13	86.18	85.81	83.99	84.10
CTLV-TL110	MH108980	80.67	98.41	98.62	98.26	100.00	100.00	100.00	100.00	86.72	86.24	86.29	93.73	85.97	85.65	86.29	86.29	100.00	86.34	86.67	86.18	86.40	86.77	86.08	85.38	85.01	86.24	83.41	86.08	86.02	86.24	86.67	86.34	86.56	94.11	87.09	83.68	85.92	85.06	85.49	83.77	84.04
CTLV-TL111	MH108981	80.67	98.41	98.62	98.26	100.00	100.00	100.00	100.00	86.72	86.24	86.29	93.73	85.97	85.65	86.29	86.29	100.00	86.34	86.67	86.18	86.40	86.77	86.08	85.38	85.01	86.24	83.41	86.08	86.02	86.24	86.67	86.34	86.56	94.11	87.09	83.68	85.92	85.06	85.49	83.77	84.04
CTLV-TL112	MH108982	79.69	80.65	80.56	80.44	80.56	80.29	80.56	80.56	95.93	95.44	86.13	86.18	95.61	95.77	95.77	100.00	86.29	94.96	95.71	95.28	95.18	85.81	86.18	85.97	85.49	86.77	84.59	87.15	85.97	86.77	96.46	86.24	86.18	85.92	86.88	84.38	85.81	85.59	86.24	84.20	84.42
CTLV-TL113	MH108983	79.55	80.76	80.69	80.62	80.65	80.69	80.65	80.65	94.09	96.84	86.13	86.50	94.59	99.83	99.83	100.00	86.29	94.96	95.71	95.28	95.18	85.81	86.18	85.97	85.49	86.77	84.59	87.15	85.97	86.77	96.46	86.24	86.18	85.92	86.88	84.38	85.81	85.59	86.24	84.20	84.42
CTLV-TL114	MH108984	79.90	80.65	80.65	80.54	80.54	80.96	80.54	80.54	92.80	96.25	86.40	86.77	96.25	96.68	96.68	100.00	86.29	94.96	95.71	95.28	95.18	85.81	86.18	85.97	85.49	86.77	84.59	87.15	85.97	86.77	96.46	86.24	86.18	85.92	86.88	84.38	85.81	85.59	86.24	84.20	84.42
CTLV-TL115	MH108985	80.13	91.59	91.70	91.55	91.39	95.37	91.39	91.39	80.29	80.71	81.08	86.67	85.76	96.68	96.68	100.00	86.29	94.96	95.71	95.28	95.18	85.81	86.18	85.97	85.49	86.77	84.59	87.15	85.97	86.77	96.46	86.24	86.18	85.92	86.88	84.38	85.81	85.59	86.24	84.20	84.42
CTLV-MTH	KC588948	85.01	80.65	80.58	80.44	80.53	80.88	80.53	80.53	80.58	80.54	81.06	80.79	85.76	86.56	86.56	100.00	86.29	94.96	95.71	95.28	95.18	85.81	86.18	85.97	85.49	86.77	84.59	87.15	85.97	86.77	96.46	86.24	86.18	85.92	86.88	84.38	85.81	85.59	86.24	84.20	84.42
CTLV-XHC	KC588947	79.24	80.04	79.99	79.99	80.06	79.99	80.06	80.06	94.84	93.20	94.27	80.28	80.31	94.53	94.53	100.00	86.29	94.96	95.71	95.28	95.18	85.81	86.18	85.97	85.49	86.77	84.59	87.15	85.97	86.77	96.46	86.24	86.18	85.92	86.88	84.38	85.81	85.59	86.24	84.20	84.42
CTLV-Pk	JX416228	79.47	80.63	80.56	80.49	80.53	80.63	80.53	80.53	93.54	99.37	96.09	80.69	80.62	93.29	100.00	100.00	86.29	94.96	95.71	95.28	95.18	85.81	86.18	85.97	85.49	86.77	84.59	87.15	85.97	86.77	96.46	86.24	86.18	85.92	86.88	84.38	85.81	85.59	86.24	84.20	84.42
CTLV-Ponkan8	KY706358	79.47	80.63	80.56	80.49	80.53	80.63	80.53	80.53	93.54	99.37	96.09	80.69	80.62	93.29	100.00	100.00	86.29	94.96	95.71	95.28	95.18	85.81	86.18	85.97	85.49	86.77	84.59	87.15	85.97	86.77	96.46	86.24	86.18	85.92	86.88	84.38	85.81	85.59	86.24	84.20	84.42
CTLV-L	EUS53489	80.67	98.41	98.62	98.26	100.00	100.00	100.00	100.00	80.56	80.65	80.54	91.39	80.53	80.06	80.53	80.53	86.34	86.67	86.18	86.40	86.77	86.08	85.38	85.01	86.24	83.41	86.08	86.02	86.24	86.67	86.34	86.56	94.11	87.09	83.68	85.92	85.06	85.49	83.77	84.04	
CTLV-Kumquat1	AY646511	79.74	80.53	80.51	80.53	80.49	80.47	80.49	80.49	94.71	93.41	94.84	80.72	80.81	97.50	93.50	93.50	80.49	96.09	98.28	97.37	85.54	85.81	85.59	85.22	86.99	84.54	87.15	85.43	86.99	94.91	86.24	86.02	86.18	86.56	83.73	86.13	84.58	86.02	83.29	84.52	
CTLV-LcDNA-1	FJ355920	79.62	80.65	80.56	80.44	80.56	80.26	80.56	80.56	99.85	94.16	92.80	80.29	80.44	94.84	93.54	93.54	80.56	94.71	96.52	96.41	85.59	86.08	85.17	84.79	86.88	84.59	87.31	85.59	86.88	96.03	85.97	85.86	86.13	87.09	83.68	86.24	84.74	86.13	84.20	84.36	
CTLV-Shatang Orange	JQ765412	79.81	80.29	80.24	80.26	80.33	80.19	80.33	80.33	94.98	93.70	94.68	80.47	80.74	97.93	93.71	93.71	80.33	97.91	94.98	98.01	85.54	85.54	85.43	85.01	86.93	84.54	86.99	85.49	86.93	95.55	86.02	85.92	86.02	86.67	83.68	86.34	84.63	85.92	83.40	84.58	
CTLV-HJY	MH144341	79.67	80.53	80.40	80.47	80.54	80.28	80.54	80.54	94.45	93.30	94.11	80.51	80.67	96.98	93.39	93.39	80.54	96.93	94.48	97.32	85.70	85.86	85.33	84.95	87.15	84.59	87.04	85.49	87.15	95.50	86.18	86.02	86.29	86.88	84.27	86.56	84.90	85.81	83.77	84.79	
CTLV-ASGV-1-HJY	MH144342	80.74	80.58	80.53	80.51	80.44	81.42	80.44	80.44	79.37	79.47	79.87	81.12	80.67	79.28	79.49	79.49	80.44	79.37	79.37	79.42	79.49	87.04	85.43	85.11	86.99	83.68	87.04	86.02	86.99	85.76	86.29	86.67	87.52	87.36	85.02	86.93	85.81	86.24	84.20	85.01	
CTLV-ASGV-2-HJY	MH144343	85.47	79.99	79.80	79.94	79.80	80.31	79.80	79.80	80.17	80.19	80.49	79.96	89.82	79.69	80.19	80.19	79.80	80.21	80.03	79.94	80.08	80.83	86.77	86.50	93.68	83.09	86.18	89.29	93.68	86.02	88.49	88.27	86.13	94.27	84.11	86.50	89.02	88.06	84.15	84.90	
CTLV-L	D16681	81.56	79.65	79.58	79.63	79.69	79.49	79.69	79.69	79.69	79.96	79.90	79.65	81.56	79.30	80.04	80.04	79.69	79.76	79.65	79.53	79.46	80.35	81.26	97.80	87.25	82.66	85.43	88.06	87.25	85.27	95.07	94.75	85.38	86.72	82.92	84.79	87.15	85.38	83.56	82.76	
ASGV-Li-23	AB004063	81.53	79.55	79.47	79.53	79.55	79.38	79.55	79.55	79.71	79.92	79.85	79.40	81.37	79.24	80.01	80.01	79.55	79.65	79.67	79																					