

ex minor	Intro	Genotype	PB2	PB1	PA	HA	NP	NA	M	NS	Constellation	reassorted genes
	A1	A1	ea1	ea1	ea1	ea1	ea1	ea1	ea1	ea1	ea1 ea1 ea1 ea1 ea1 ea1 ea1 ea1	none
	A2	A2	ea2	ea2	ea2	ea2	ea2	ea2	ea2	ea2	ea2 ea2 ea2 ea2 ea2 ea2 ea2 ea2	none
	A3	A3	ea3	ea3	ea3	ea3	ea3	ea3	ea3	ea3	ea3 ea3 ea3 ea3 ea3 ea3 ea3 ea3	none
	A4	A4	ea4	ea4	ea4	ea4	ea4	ea4	ea4	ea4	ea4 ea4 ea4 ea4 ea4 ea4 ea4 ea4	none
	A5	A5	ea5	ea5	ea5	ea5	ea5	ea5	ea5	ea5	ea5 ea5 ea5 ea5 ea5 ea5 ea5 ea5	none
	A6	A6	ea6	ea6	ea6	ea6	ea6	ea6(N5)	ea6	ea6	ea6 ea6 ea6 ea6 ea6 ea6(N5) ea6 ea6	fully Eurasian (N5)
	A1	B1.1	am1.1	am1.1	ea1	ea1	am1.2	ea1	ea1	ea1	am1.1 am1.1 ea1 ea1 am1.2 ea1 ea1 ea1	PB2 PB1 NP
	A1	B1.2	am1.1	am1.1	am1	ea1	am1.2	ea1	ea1	ea1	am1.1 am1.1 am1 ea1 am1.2 ea1 ea1 ea1	PB2 PB1 NP
	A1	B1.3	am1.3	am1.3	am1.2	ea1	am1.2	ea1	ea1	ea1	am1.3 am1.3 am1.2 ea1 am1.2 ea1 ea1 ea1	PB2 PB1 NP
	A1	B2.1	am1.2	ea1	ea1	ea1	am1.1	ea1	ea1	ea1	am1.2 ea1 ea1 ea1 am1.1 ea1 ea1 ea1	PB2 NP
minor03	A1	B2.2	am1.2	ea1	ea1	ea1	am1.1	ea1	ea1	am1.2	am1.2 ea1 ea1 ea1 am1.1 ea1 ea1 am1.2	PB2 NP NS
	A1	B3.1	am2.1	ea1	ea1	ea1	am1.4.1	ea1	ea1	ea1	am2.1 ea1 ea1 ea1 am1.4.1 ea1 ea1 ea1	PB2 NP
	A1	B3.2	am2.1	am1.2	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am2.1 am1.2 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	B3.3	am13	am1.4	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am13 am1.4 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	B3.4	am4	am1.2	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am4 am1.2 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP
	A1	B3.5	am3.2	am1.2	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am3.2 am1.2 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	B3.6	am5	am4	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am5 am4 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	B3.7	am2.2	am4	ea1	ea1	am4	ea1	ea1	am1.1	am2.2 am4 ea1 ea1 am4 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	B3.8	am5	am4	ea1	ea1	am1.2	ea1	ea1	am1.1	am5 am4 ea1 ea1 am1.2 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	B3.9	am2.2	am4	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am2.2 am4 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
Minor69	A1	B3.10	am5	am4	ea1	ea1	am4	ea1	ea1	am1.1	am5 am4 ea1 ea1 am4 ea1 ea1 am1.1	PB2 PB1 NP NS
Minor59	A1	B3.11	am5	am4	ea1	ea1	am1.1	ea1	ea1	am1.1	am5 am4 ea1 ea1 am1.1 ea1 ea1 am1.1	PB2 PB1 NP NS
Minor54	A1	B3.12	am5	am4	ea1	ea1	am11	ea1	ea1	am1.1	am5 am4 ea1 ea1 am11 ea1 ea1 am1.1	PB2 PB1 NP NS
Minor64	A1	B3.13	am2.2	am4	ea1	ea1	am8	ea1	ea1	am1.1	am2.2 am4 ea1 ea1 am8 ea1 ea1 am1.1	PB2 PB1 NP NS
Minor72	A1	B4.1	am2.2	ea1	ea1	ea1	am1.3	ea1	ea1	ea1	am2.2 ea1 ea1 ea1 am1.3 ea1 ea1 ea1	PB2 NP
Minor85	A1	B5.1	ea1	ea1	ea1	ea1	am1.4.2	ea1	ea1	ea1	ea1 ea1 ea1 ea1 am1.4.2 ea1 ea1 ea1	NP
	A2	C1.1	ea1	am1.3	ea1	ea2	ea1	ea2	ea1	ea1	ea1 am1.3 ea1 ea2 ea1 ea2 ea1 ea1	PB1
	A2	C2.1	am19	am20	am3	ea2	ea1	ea2	ea1	ea1	am19 am20 am3 ea2 ea1 ea2 ea1 ea1	PB2 PB1 PA
	A2	C3.1	am22	am10	ea1	ea2	am5	ea2	ea1	am5	am22 am10 ea1 ea2 am5 ea2 ea1 am5	PB2 PB1 NP NS
	A3	D1.1	am24	ea3	am4	ea3	am13	am4(N1)	ea3	ea3	am24 ea3 am4 ea3 am13 am4(N1) ea3 ea3	PB2 PA NP NA
	A3	D1.2	am24	ea3	am5	ea3	am13	am4(N1)	ea3	ea3	am24 ea3 am5 ea3 am13 am4(N1) ea3 ea3	PB2 PA NP NA
	A1	minor01	am1.1	ea1	ea1	ea1	am1.2	ea1	ea1	ea1	am1.1 ea1 ea1 ea1 am1.2 ea1 ea1 ea1	PB2 NP
	A1	minor04	ea1	ea1	ea1	ea1	am1.1	ea1	ea1	ea1	ea1 ea1 ea1 ea1 am1.1 ea1 ea1 ea1	NP
	A1	minor07	am2.1	ea1	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am2.1 ea1 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 NP NS
	A1	minor08	am2.2	ea1	ea1	ea1	am1.6	ea1	ea1	ea1	am2.2 ea1 ea1 ea1 am1.6 ea1 ea1 ea1	PB2 NP
	A1	minor09	ea1	ea1	ea1	ea1	am1.4.1	ea1	ea1	ea1	ea1 ea1 ea1 ea1 am1.4.1 ea1 ea1 ea1	NP
	A1	minor10	am14	ea1	ea1	ea1	am1.6	ea1	ea1	ea1	am14 ea1 ea1 ea1 am1.6 ea1 ea1 ea1	PB2 NP
	A1	minor11	am2.3.2	ea1	ea1	ea1	am1.5	ea1	ea1	ea1	am2.3.2 ea1 ea1 ea1 am1.5 ea1 ea1 ea1	PB2 NP
	A1	minor12	ea1	ea1	ea1	ea1	am1.6	ea1	ea1	ea1	ea1 ea1 ea1 ea1 am1.6 ea1 ea1 ea1	NP
	A1	minor13	am1.2	ea1	ea1	ea1	am1.4.1	ea1	ea1	ea1	am1.2 ea1 ea1 ea1 am1.4.1 ea1 ea1 ea1	PB2 NP
	A1	minor14	am2.3.1	am2	am2	ea1	am2	ea1	ea1	am1.3	am2.3.1 am2 am2 ea1 am2 ea1 ea1 am1.3	PB2 PB1 PA NP NS
	A1	minor15	am2.1	am1.2	ea1	ea1	am1.4.1	ea1	ea1	ea1	am2.1 am1.2 ea1 ea1 am1.4.1 ea1 ea1 ea1	PB2 PB1 NP
	A1	minor16	am2.2	am6	ea1	ea1	am3	am1(N4)	ea1	ea1	am2.2 am6 ea1 ea1 am3 am1(N4) ea1 ea1	PB2 PB1 NP NA
	A1	minor17	am3.1	ea1	ea1	ea1	ea1	ea1	ea1	ea1	am3.1 ea1 ea1 ea1 ea1 ea1 ea1 ea1	PB2
	A1	minor18	am3.3	am2	ea1	ea1	am1.4.1	ea1	ea1	am1.4	am3.3 am2 ea1 ea1 am1.4.1 ea1 ea1 am1.4	PB2 PB1 NP NS
	A1	minor19	am1.2	am1.2	ea1	ea1	am1.1	ea1	ea1	ea1	am1.2 am1.2 ea1 ea1 am1.1 ea1 ea1 ea1	PB2 PB1 NP
	A1	minor24	am2.2	am1.2	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am2.2 am1.2 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor25	am1.2	am1.1	ea1	ea1	am1.1	ea1	ea1	am1.2	am1.2 am1.1 ea1 ea1 am1.1 ea1 ea1 am1.2	PB2 PB1 NP NS
	A1	minor26	am1.2	am1.2	ea1	ea1	am1.2	ea1	ea1	ea1	am1.2 am1.2 ea1 ea1 am1.2 ea1 ea1 ea1	PB2 PB1 NP
	A1	minor27	am2.1	ea1	ea1	ea1	am1.1	ea1	ea1	am1.1	am2.1 ea1 ea1 ea1 am1.1 ea1 ea1 am1.1	PB2 NP NS
	A1	minor28	am1.1	am1.2	ea1	ea1	am1.2	ea1	ea1	am1.2	am1.1 am1.2 ea1 ea1 am1.2 ea1 ea1 am1.2	PB2 PB1 NP NS
	A1	minor29	am1.2	am1.2	ea1	ea1	am1.1	ea1	ea1	am1.1	am1.2 am1.2 ea1 ea1 am1.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor30	am1.2	am1.2	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am1.2 am1.2 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS

ex minor	Intro	Genotype	PB2	PB1	PA	HA	NP	NA	M	NS	Constellation	reassorted genes
	A1	minor31	am1.2	am1.2	ea1	ea1	am1.4.1	ea1	ea1	ea1	am1.2 am1.2 ea1 ea1 am1.4.1 ea1 ea1 ea1	PB2 PB1 NP
	A1	minor32	am2.1	am5	ea1	ea1	am4	ea1	ea1	am1.1	am2.1 am5 ea1 ea1 am4 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor33	am2.1	am1.2	ea1	ea1	am1.1	ea1	ea1	am1.1	am2.1 am1.2 ea1 ea1 am1.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor34	am11	am1.2	ea1	ea1	am5	ea1	ea1	am1.1	am11 am1.2 ea1 ea1 am5 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor35	am2.1	am1.2	ea1	ea1	am1.2	ea1	ea1	am1.1	am2.1 am1.2 ea1 ea1 am1.2 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor36	am1.3	am1.3	am1.2	ea1	am1.2	am2(N5)	ea1	ea1	am1.3 am1.3 am1.2 ea1 am1.2 am2(N5) ea1 ea1	PB2 PB1 NP
	A1	minor37	am15	am6	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am15 am6 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor38	am6	am7	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am6 am7 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor39	am7	am1.2	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am7 am1.2 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor40	am1.2	am8	ea1	ea1	am1.1	ea1	ea1	am1.2	am1.2 am8 ea1 ea1 am1.1 ea1 ea1 am1.2	PB2 PB1 NP NS
	A1	minor41	am10	am9	ea1	ea1	am6	ea1	ea1	am1.1	am10 am9 ea1 ea1 am6 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor42	am11	am10	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am11 am10 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor43	am1.2	ea1	ea1	ea1	am1.1	ea1	ea1	am1.1	am1.2 ea1 ea1 ea1 am1.1 ea1 ea1 am1.1	PB2 NP NS
	A1	minor44	am2.2	am1.2	ea1	ea1	am7	ea1	ea1	am1.1	am2.2 am1.2 ea1 ea1 am7 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor45	am12	am11	ea1b	ea1	am1.3	ea1	ea1	am1.2	am12 am11 ea1b ea1 am1.3 ea1 ea1 am1.2	PB2 PB1 PA NP NS
	A1	minor46	am8	am12	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am8 am12 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor47	am9	am1.2	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am9 am1.2 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	minor48	am1.3	am1.3	am1.2	ea1	am1.2	ea1	ea1	am3	am1.3 am1.3 am1.2 ea1 am1.2 ea1 ea1 am3	PB2 PB1 PA NP NS
	A1	Minor50	am13	am1.2	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am13 am1.2 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor51	am5	am7	ea1	ea1	am8	ea1	ea1	am1.1	am5 am7 ea1 ea1 am8 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor52	am2.2	am4	am1	ea1	am4	ea1	ea1	am1.1	am2.2 am4 am1 ea1 am4 ea1 ea1 am1.1	PB2 PB1 PA NP NS
	A1	Minor53	am2.2	am4	ea1	ea1	am1.1	ea1	ea1	am1.1	am2.2 am4 ea1 ea1 am1.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor55	am5	am13	ea1	ea1	am9	ea1	ea1	am1.1	am5 am13 ea1 ea1 am9 ea1 ea1 am1.1	PB2 PB1 NP NS
	A2	Minor56	am16	am2	ea1	ea2	am1.1	am3(N6)	ea1	am4	am16 am2 ea1 ea2 am1.1 am3(N6) ea1 am4	PB2 PB1 NP NA NS
	A2	Minor57	am17	am14	ea1	ea2	am10	ea2	ea1	ea1	am17 am14 ea1 ea2 am10 ea2 ea1 ea1	PB2 PB1 NP
	A1	Minor58	am5	am4	ea1	ea1	am7	ea1	ea1	am1.1	am5 am4 ea1 ea1 am7 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor60	am2.1	am4	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am2.1 am4 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor61	am1.1	am15	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am1.1 am15 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor62	am17	am4	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am17 am4 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor63	am18	am4	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am18 am4 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A2	Minor65	am19	ea2	am3	ea2	ea1	ea2	ea1	ea1	am19 ea2 am3 ea2 ea1 ea2 ea1 ea1	PB2 PA
	A2	Minor66	ea1	am13	ea1	ea2	am9	ea2	ea1	am1.2	ea1 am13 ea1 ea2 am9 ea2 ea1 am1.2	PB1 NP NS
	A2	Minor67	am17	am16	am1	ea2	am10	ea2	ea1	ea1	am17 am16 am1 ea2 am10 ea2 ea1 ea1	PB2 PB1 PA NP NS
	A1	Minor70	am5	am1.3	ea1	ea1	am1.1	ea1	ea1	am1.1	am5 am1.3 ea1 ea1 am1.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor71	am5	am17	ea1	ea1	am8	ea1	ea1	am1.1	am5 am17 ea1 ea1 am8 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor73	am20	am4	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am20 am4 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor74	am6	am4	ea1	ea1	am1.6	ea1	ea1	am1.1	am6 am4 ea1 ea1 am1.6 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor75	am19	am4	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am19 am4 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor76	am2.2	am18	ea1	ea1	am4	ea1	ea1	am1.1	am2.2 am18 ea1 ea1 am4 ea1 ea1 am1.1	PB2 PB1 NP NS
	A2	Minor77	am11	ea2	ea1	ea2	ea1	ea2	ea1	ea1	am11 ea2 ea1 ea2 ea1 ea2 ea1 ea1	PB2
	A2	Minor78	am2.2	ea2	ea1	ea2	am11	ea2	ea1	ea1	am2.2 ea2 ea1 ea2 am11 ea2 ea1 ea1	PB2 NP
	A1	Minor79	am5	am4	ea1	ea1	am1.6	ea1	ea1	am1.1	am5 am4 ea1 ea1 am1.6 ea1 ea1 am1.1	PB2 PB1 NP NS
	A2	Minor80	am7	am10	ea1	ea2	am5	a2	ea1	am4	am7 am10 ea1 ea2 am5 a2 ea1 am4	PB2 PB1 NP NS
	A2	Minor81	am19	am14	ea1	ea2	am10	ea2	ea1	ea1	am19 am14 ea1 ea2 am10 ea2 ea1 ea1	PB2 PB1 NP
	A1	Minor82	am21	am4	ea1	ea1	am1.4.1	ea1	ea1	am1.1	am21 am4 ea1 ea1 am1.4.1 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor83	am5	am18	ea1	ea1	am1.5	ea1	ea1	am1.1	am5 am18 ea1 ea1 am1.5 ea1 ea1 am1.1	PB2 PB1 NP NS
	A1	Minor84	am19	am4	ea1	ea1	am1.4.1	ea4b	ea1	am1.1	am19 am4 ea1 ea1 am1.4.1 ea4b ea1 am1.1	PB2 PB1 NP NA NS
	A2	Minor86	am2.2	ea2	ea1	ea2	am1.1	ea2	ea1	ea1	am2.2 ea2 ea1 ea2 am1.1 ea2 ea1 ea1	PB2 NP
	A2	Minor87	am19	am20	am3	ea2	am1.1	ea2	ea1	ea1	am19 am20 am3 ea2 am1.1 ea2 ea1 ea1	PB2 PB1 PA NP
	A2	Minor89	am19	am20	ea1	ea2	ea1	ea2	ea1	ea1	am19 am20 ea1 ea2 ea1 ea2 ea1 ea1	PB2 PB1
	A2	Minor90	am19	am2	am3	ea2	am5	ea2	ea1	ea1	am19 am2 am3 ea2 am5 ea2 ea1 ea1	PB2 PB1 PA NP
	A2	Minor91	am19	am20	am3	ea2	am1.2	ea2	ea1	ea1	am19 am20 am3 ea2 am1.2 ea2 ea1 ea1	PB2 PB1 PA NP
	A2	Minor92	am23	ea2	ea1	ea2	am10	ea2	ea1	am1.2	am23 ea2 ea1 ea2 am10 ea2 ea1 am1.2	PB2 NP NS

ex minor	Intro	Genotype	PB2	PB1	PA	HA	NP	NA	M	NS	Constellation	reassorted genes
	A2	Minor93	am23	ea2	ea1	ea2	ea1	ea2	ea1	ea1	am23 ea2 ea1 ea2 ea1 ea2 ea1 ea1	PB2
	A2	Minor94	am19	am12	am1	ea2	am12	ea2	ea1	ea1	am19 am12 am1 ea2 am12 ea2 ea1 ea1	PB2 PB1 PA NP