

Electronic Supplementary Material

National Epidemiology and Evolutionary History of Four Hand, Foot and Mouth Disease-related Enteroviruses in China from 2008 to 2016

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Supplementary Table S1. Cohorts of enteroviruses associated HFMD cases in China from 2008 to 2016 used in the molecular epidemiological analyses.

Region	Province (City)	serotype	2008	2009	2010	2011	2012	2013	2014	2015	2016	References
Northeast China	Heilongjiang (Harbin)	EV-A71	59	146	152	386	52	52	305	NA	NA	Liang, <i>et al.</i> 2012; Feng, <i>et al.</i> 2016
		CV-A16	4	82	14	48	470	29	249	NA	NA	
		Other enteroviruses	63	232	21	70	94	104	60	NA	NA	
	Jilin	EV-A71	67	237	516	661	255	230	964	64	147	Shan, <i>et al.</i> 2017; Li, <i>et al.</i> 2018; Huang, <i>et al.</i> 2017
		CV-A16	19	205	508	307	595	107	417	212	326	
		Other enteroviruses	33	118	333	231	324	435	340	436	529	
	Liaoning (Shenyang)	EV-A71	NA	33	112	87	141	227	126	48	24	Liu, <i>et al.</i> 2014; Qi, <i>et al.</i> 2018b
		CV-A16	NA	2	88	14	305	131	123	28	167	
		Other enteroviruses	NA	43	29	28	76	201	86	392	125	
Northwest China	Shaanxi	EV-A71	18	219	516	550	1073	601	1885	664	NA	Yu, <i>et al.</i> 2012; Zheng, <i>et al.</i> 2016; Zheng, <i>et al.</i> 2015
		CV-A16	22	21	409	105	345	366	855	620	NA	
		Other enteroviruses	2	26	203	197	455	1517	965	1712	NA	
	Gansu	EV-A71	166	301	174	560	359	321	333	203	296	Chen, <i>et al.</i> 2017; Yu, <i>et al.</i> 2014
		CV-A16	198	120	475	96	492	276	625	197	354	
		Other enteroviruses	11	12	91	122	145	347	225	531	606	
	Ningxia	EV-A71	93	60	211	164	163	104	415	140	NA	Ma, <i>et al.</i> 2012; Ma, <i>et al.</i> 2016
		CV-A16	59	18	264	72	301	407	439	720	NA	
		Other enteroviruses	23	61	89	71	128	277	183	530	NA	
	Qinghai	EV-A71	50	56	NA	27	149	226	NA	NA	NA	Liu, <i>et al.</i> 2009; Xu, <i>et al.</i> 2014; Yang, <i>et al.</i> 2015; Zhang <i>et al.</i> 2013
		CV-A16	13	41	NA	8	10	47	NA	NA	NA	
		Other enteroviruses	0	0	NA	0	0	41	NA	NA	NA	
	Xinjiang	EV-A71	46	25	251	401	225	380	401	288	NA	Deng, <i>et al.</i> 2016; Liu, <i>et al.</i> 2018
		CV-A16	48	16	261	395	744	93	797	498	NA	
		Other enteroviruses	10	26	83	73	83	366	134	279	NA	
North China	Beijing	EV-A71	347	420	950	608	738	458	616	111	NA	Li, <i>et al.</i> 2016; Wang, <i>et al.</i> 2014
		CV-A16	76	634	716	666	1191	519	729	246	NA	
		Other enteroviruses	150	150	602	223	233	1498	362	810	NA	
	Tianjin	EV-A71	142	128	564	646	623	277	242	NA	NA	Chen, <i>et al.</i> 2015; Tan, <i>et al.</i> 2015
		CV-A16	16	88	535	285	565	200	567	NA	NA	
		Other enteroviruses	8	52	191	373	351	883	135	NA	NA	
	Hebei	EV-A71	NA	703	2230	1865	3687	1503	2873	NA	NA	Liu, <i>et al.</i> 2012; Liu, <i>et al.</i> 2016
		CV-A16	NA	436	696	886	1781	272	1561	NA	NA	
		Other enteroviruses	NA	167	863	610	1133	1446	1044	NA	NA	
	Shanxi (Taiyuan)	EV-A71	NA	NA	NA	151	291	272	215	NA	NA	Duan, 2015; Guo, 2016
		CV-A16	NA	NA	NA	171	183	116	223	NA	NA	
		Other enteroviruses	NA	NA	NA	42	48	49	54	NA	NA	
	Inner Mongolia	EV-A71	8	21	130	412	174	582	875	359	NA	Qian, <i>et al.</i> 2017
		CV-A16	0	4	128	306	427	413	486	313	NA	
		Other enteroviruses	0	9	297	529	589	572	696	697	NA	
Central China	Henan	EV-A71	190	3601	5081	2417	3298	1843	NA	NA	NA	He, <i>et al.</i> 2015
		CV-A16	27	825	402	899	867	894	NA	NA	NA	
		Other enteroviruses	46	1921	1794	816	1213	1498	NA	NA	NA	

	Hubei	EV-A71	141	195	889	1442	38974	NA	NA	603	NA	Dai, <i>et al.</i> 2017; Wang, <i>et al.</i> 2013; Zou, <i>et al.</i> 2017
		CV-A16	26	87	494	787	4094	NA	NA	595	NA	
		Other enteroviruses	59	63	421	507	4895	NA	NA	1676	NA	
	Hunan	EV-A71	239	152	2520	1006	4510	1565	2675	2037	NA	Wu, <i>et al.</i> 2017b; Zeng, <i>et al.</i> 2013
		CV-A16	39	140	655	1019	685	630	1595	537	NA	
		Other enteroviruses	28	112	1186	911	1689	2177	1811	2965	NA	
East China	Shandong (Jinan)	EV-A71	NA	119	177	329	182	277	208	208	NA	Geng, <i>et al.</i> 2016
		CV-A16	NA	21	263	156	359	149	365	82	NA	
		Other enteroviruses	NA	109	123	145	103	236	170	337	NA	
	Jiangsu (Nanjing)	EV-A71	1	76	299	313	188	123	137	167	NA	Feng, <i>et al.</i> 2015; Zhang, <i>et al.</i> 2017; Zhang, <i>et al.</i> 2015
		CV-A16	0	19	185	153	330	48	203	154	NA	
		Other enteroviruses	2	3	79	115	135	282	186	289	NA	
	Anhui (Hefei & Fuyang)	EV-A71	884	195	220	902	115	160	165	NA	NA	Hu, <i>et al.</i> 2014; Wu, <i>et al.</i> 2017a; Hu, 2015; Zhang, <i>et al.</i> 2012
		CV-A16	248	55	27	452	61	9	49	NA	NA	
		Other enteroviruses	63	49	53	504	87	130	85	NA	NA	
	Shanghai (Fengxian & Hongkou)	EV-A71	NA	38	54	221	88	29	45	44	NA	Wang, 2017b; Yu, <i>et al.</i> 2018; Yang, <i>et al.</i> 2012
		CV-A16	NA	38	49	85	94	28	85	34	NA	
		Other enteroviruses	NA	11	44	86	27	155	56	76	NA	
	Zhejiang	EV-A71	804	461	2379	2085	1735	975	2171	691	NA	Wu, <i>et al.</i> 2016
		CV-A16	63	433	1320	747	1336	397	1493	812	NA	
		Other enteroviruses	588	191	650	882	1313	3022	2950	2753	NA	
	Jiangxi (Nanchang)	EV-A71	NA	45	63	167	401	NA	148	NA	NA	He, <i>et al.</i> 2013; Li, 2011; Liu, <i>et al.</i> 2011; Zhang, <i>et al.</i> 2015
		CV-A16	NA	25	19	82	105	NA	66	NA	NA	
		Other enteroviruses	NA	4	70	75	125	NA	22	NA	NA	
Fujian	EV-A71	780	746	2546	324	1977	811	953	1278	NA	Ye, <i>et al.</i> 2018	
	CV-A16	124	172	715	177	685	364	1147	207	NA		
	Other enteroviruses	28	7	99	133	1273	2245	1507	2165	NA		
South China	Guangdong (Guangzhou)	EV-A71	205	195	1005	520	1127	411	637	232	NA	Chen, <i>et al.</i> 2014a; Liu, <i>et al.</i> 2017
		CV-A16	166	747	536	928	1200	276	1109	152	NA	
		CA-V6	101	673	660	1204	1832	4129	498	1614	NA	
	Guangxi	EV-A71	178	101	2178	933	4092	468	3475	854	NA	He, <i>et al.</i> 2017
		CV-A16	34	205	194	1927	561	1579	1580	528	NA	
		Other enteroviruses	210	45	828	1223	2443	3091	2727	4523	NA	
	Hainan	EV-A71	84	220	214	280	295	NA	NA	NA	NA	Chen, <i>et al.</i> 2014b; Jin, <i>et al.</i> 2009
		CV-A16	0	17	224	276	197	NA	NA	NA	NA	
		Other enteroviruses	44	81	193	47	298	NA	NA	NA	NA	
Southwest China	Sichuan (Mianyang)	EV-A71	NA	86	9	128	27	179	45	NA	NA	Wang, <i>et al.</i> 2016; Zhou, <i>et al.</i> 2012
		CV-A16	NA	2	96	4	125	10	37	NA	NA	
		Other enteroviruses	NA	2	5	6	103	164	6	NA	NA	
	Guizhou	EV-A71	5	101	294	836	1484	826	921	537	NA	Wang, <i>et al.</i> 2017a
		CV-A16	0	2	291	387	1194	378	968	312	NA	
		Other enteroviruses	4	76	142	507	1347	2045	1393	1927	NA	
Yunnan	EV-A71	28	341	1337	3024	2198	2691	3401	3750	3303	Yang.	

		CV-A16	7	25	2215	808	4004	612	3769	1857	3286	2017; Cun, <i>et al.</i> 2015
		Other enteroviruses	1	14	30	88	119	923	1438	2904	4487	
	Chongqing	EV-A71	NA	159	268	750	414	514	710	621	500	Qi, <i>et al.</i> 2018a
		CV-A16	NA	35	558	620	546	222	1087	565	628	
		Other enteroviruses	NA	3	97	412	638	1119	1330	916	1024	
	Tibet	EV-A71	NA	17	163	28	8	11	NA	NA	NA	Da, <i>et al.</i> 2014
		CV-A16	NA	23	58	11	15	0	NA	NA	NA	
		Other enteroviruses	NA	4	2	2	1	0	NA	NA	NA	

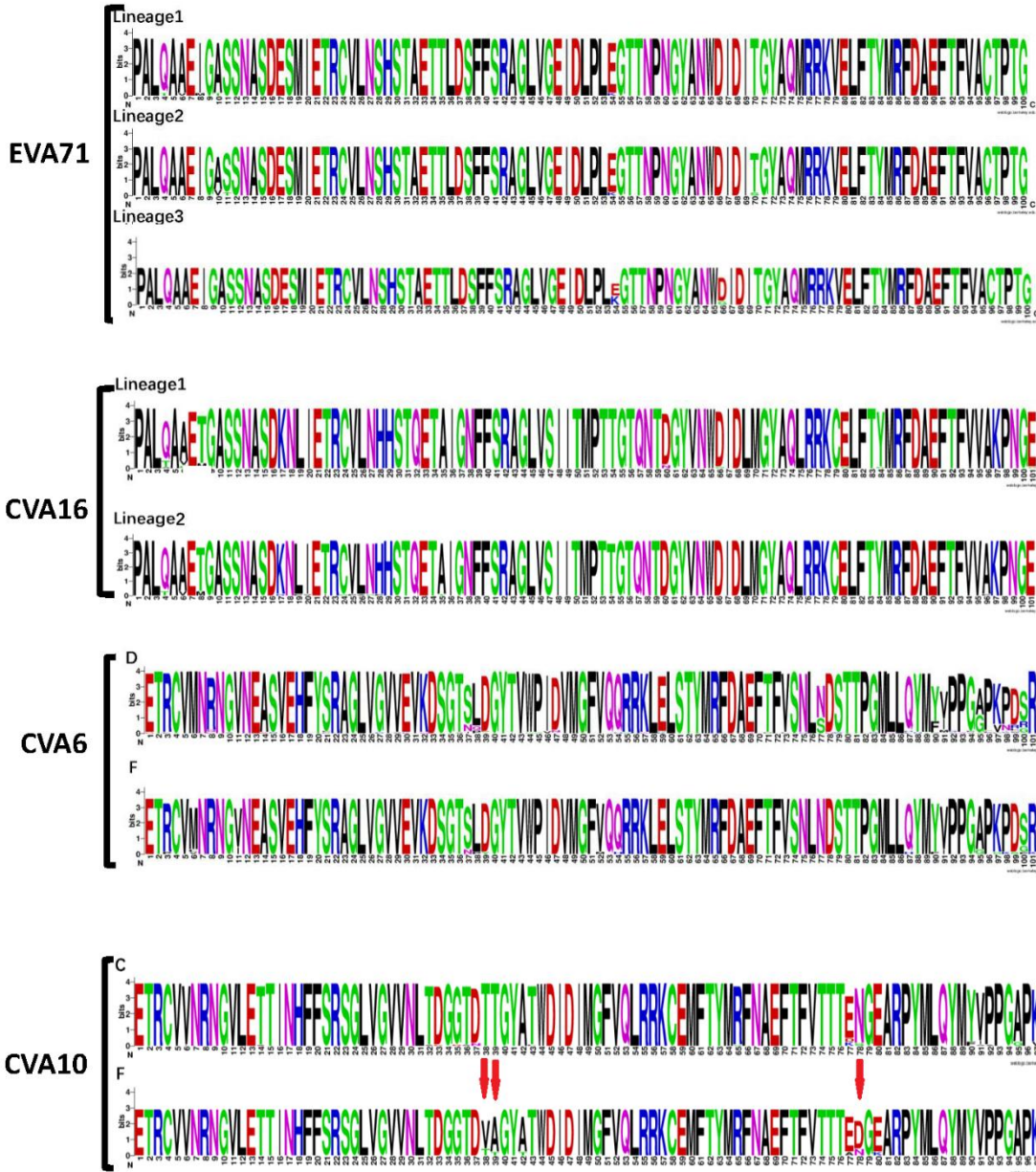


Fig. S1. Amino acid sequence features of the partial VP1 genes of different lineages of the targeted enteroviruses. The character and size of each logo represent the proportion of an amino acid at the specific site. The three different amino acids between CVA10 genotypes C and D are highlighted by red arrows.

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