

Supplementary Fig. S1. Comparison of the deduced amino acid sequences of the VP7 genes of rotavirus strains Y128, R588 and E1911 with those of selected old and recent G1 rotavirus strains from China and other countries and the G1 component of rotavirus vaccines RotaTeq™ and Rotarix™. The variable regions (designated as V1 to V9) are shaded in grey. Variable regions V5, V7, V8, and V9 correspond to the putative antigenic regions A, B, C, and F, respectively.

Country/Strain/Year/G-P combination

	1	V1	V2	V3	50
CHN/Y128/2004/G1P[8]	MYGIEYTT	ILIFLISIIILLNY	ILKSVTRIMDYIIYR	FLLISIALFALTKA	
CHN/R588/2005/G1P[8]
CHN/E1911/2009/G1P[8]	M.....	.....V.....	.....
USA/Wa/1974/G1P1A[8]TV.....	.....R.....
JPN/K8/1977/G1P[9]T.....	.....R.....
JPN/KU/1978/G1P1A[8]TV.....	.....R.....
CHN/98'B43/1998/G1P[x]V.....	.....
CHN/Chi-78/2002/G1P[x]V.....	.....
BGD/Dhaka16/2003/G1P[8]M.....	.....FV.....	.....
THA/CMH022/2004/G1P[8]Q.....	.....FV.....	.....
BEL/BE00006/2005/G1P[8]FV.....	.....
CHN/Z678/2006/G1P[8]
IND/61060/2006/G1P[8]FV.....	.....
KOR/CAU219/2006/G1P[8]V.....	.....
AUS/CK00047/2006/G1P[8]
USA/LB2719/2006/G1P[8]V.....	.....
CHN/AS4/2007/G1P[8]
RotaTeq/G1TV.....	.....R.....
Rotarix/G1	S.....YV.....	.....R.....

	51	V3	V4	V5	100
CHN/Y128/2004/G1P[8]	QNYGLNIPITGSMD	TVYSNSTQEGIF	FLTSTLCLYYP	TEASNQISDGEWKD	
CHN/R588/2005/G1P[8]	.....	.....	.....	.....	.....
CHN/E1911/2009/G1P[8]	.....	.....	.....V.....	.....	.....
USA/Wa/1974/G1P1A[8]	.....L.....	A.....T.....	EV.....	.....T.....N.....D.....	.....
JPN/K8/1977/G1P[9]	.....L.....	.....T.....	EV.....	N.....T.....N.....D.....	.....
JPN/KU/1978/G1P1A[8]	.....L.....	.....T.....	EV.....	.....T.....N.....D.....	.....
CHN/98'B43/1998/G1P[x]	.....	.....	.....V.....	.....	.....
CHN/Chi-78/2002/G1P[x]	.....	.....	.....V.....	.....	.....
BGD/Dhaka16/2003/G1P[8]	.....	.....	.....R.....EV.....	.....T.....	.....
THA/CMH022/2004/G1P[8]	.....	.....	.....V.....	.....T.....	.....
BEL/BE00006/2005/G1P[8]	.....	.....	.....R.....EV.....	.....T.....	.....
CHN/Z678/2006/G1P[8]	.....	.....	.....	.....	.....
IND/61060/2006/G1P[8]	.....	.....	.....	.....T.....	.....
KOR/CAU219/2006/G1P[8]	.....M.....	.....	.....V.....	.....	.....
AUS/CK00047/2006/G1P[8]	.....	.....	.....E.....	.....	.....
USA/LB2719/2006/G1P[8]	.....	.....	.....Y.....V.....	.....T.....	.....
CHN/AS4/2007/G1P[8]	.....	.....	.....	.....	.....
RotaTeq/G1	.....L.....	A.....T.....	EV.....	.....T.....N.....D.....	.....
Rotarix/G1	.....L.....	.....A.....	.....	.....T.....N.....	.....

	101	V6	V7	150
CHN/Y128/2004/G1P[8]	SLSQMFLTKGWPTGSVYF	KEYSNIVDFSVD	POLYCDYNLVL	LMKYDQNL
CHN/R588/2005/G1P[8]
CHN/E1911/2009/G1P[8]
USA/Wa/1974/G1P1A[8]S.....
JPN/K8/1977/G1P[9]S.....	.....	.....S.....
JPN/KU/1978/G1P1A[8]S.....	.....	.....S.....V.....
CHN/98'B43/1998/G1P[x]
CHN/Chi-78/2002/G1P[x]
BGD/Dhaka16/2003/G1P[8]
THA/CMH022/2004/G1P[8]
BEL/BE00006/2005/G1P[8]
CHN/Z678/2006/G1P[8]
IND/61060/2006/G1P[8]
KOR/CAU219/2006/G1P[8]
AUS/CK00047/2006/G1P[8]I.....	.....	.....
USA/LB2719/2006/G1P[8]
CHN/AS4/2007/G1P[8]
RotaTeq/G1	T.....	.....S.....	.....	F.....S.....
Rotarix/G1S.....	.....	.....

```

151
CHN/Y128/2004/G1P[8] DMSELADLILNEWLCNPMDDITLYYYQQSGESNKWISMGSSCTVKVCPLNT
CHN/R588/2005/G1P[8] .....
CHN/E1911/2009/G1P[8] .....
USA/Wa/1974/G1P1A[8] .....V.....
JPN/K8/1977/G1P[9] .....
JPN/KU/1978/G1P1A[8] .....
CHN/98'B43/1998/G1P[x] .....
CHN/Chi-78/2002/G1P[x] .....
BGD/Dhaka16/2003/G1P[8] .....
THA/CMH022/2004/G1P[8] .....
BEL/BE00006/2005/G1P[8] .....
CHN/Z678/2006/G1P[8] .....
IND/61060/2006/G1P[8] .....
KOR/CAU219/2006/G1P[8] .....
AUS/CK00047/2006/G1P[8] .....
USA/LB2719/2006/G1P[8] .....
CHN/AS4/2007/G1P[8] .....
RotaTeq/G1 .....V.....
Rotarix/G1 .....

```

```

201          v8          v9          250
CHN/Y128/2004/G1P[8] QTLGIGCQTNNVDSFETVAENEKLAIVDVVDGINHKKINLTTTTCTIRNCK
CHN/R588/2005/G1P[8] .....
CHN/E1911/2009/G1P[8] .....
USA/Wa/1974/G1P1A[8] .....MI.....
JPN/K8/1977/G1P[9] .....M.....
JPN/KU/1978/G1P1A[8] .....M.....
CHN/98'B43/1998/G1P[x] .....
CHN/Chi-78/2002/G1P[x] .....
BGD/Dhaka16/2003/G1P[8] .....N.....
THA/CMH022/2004/G1P[8] .....
BEL/BE00006/2005/G1P[8] .....
CHN/Z678/2006/G1P[8] .....
IND/61060/2006/G1P[8] .....
KOR/CAU219/2006/G1P[8] .....
AUS/CK00047/2006/G1P[8] .....I.....
USA/LB2719/2006/G1P[8] .....
CHN/AS4/2007/G1P[8] .....MI.....
RotaTeq/G1 .....MI.....
Rotarix/G1 .M.....M.....

```

```

251          300
CHN/Y128/2004/G1P[8] KLGPRENVAVIQVGGSNILDITADPTTNPQIERMMRVNWKRWVQVFTYIV
CHN/R588/2005/G1P[8] .....
CHN/E1911/2009/G1P[8] .....
USA/Wa/1974/G1P1A[8] .....V.....T.....K.....
JPN/K8/1977/G1P[9] .....V.....T.....K.....
JPN/KU/1978/G1P1A[8] .....V.....T.....K.....
CHN/98'B43/1998/G1P[x] .....
CHN/Chi-78/2002/G1P[x] .....
BGD/Dhaka16/2003/G1P[8] .....A.....
THA/CMH022/2004/G1P[8] .....A.....
BEL/BE00006/2005/G1P[8] .....A.....
CHN/Z678/2006/G1P[8] .....
IND/61060/2006/G1P[8] .....A.....
KOR/CAU219/2006/G1P[8] .....
AUS/CK00047/2006/G1P[8] .....
USA/LB2719/2006/G1P[8] .....
CHN/AS4/2007/G1P[8] .....
RotaTeq/G1 .....V.....T.....K.....
Rotarix/G1 .....V.....T.....K.....

```

	301	326
CHN/Y128/2004/G1P[8]	DYINQIVQVMSKRSLNSAAFYYRV	
CHN/R588/2005/G1P[8]	
CHN/E1911/2009/G1P[8]	
USA/Wa/1974/G1P1A[8]	
JPN/K8/1977/G1P[9]	
JPN/KU/1978/G1P1A[8]	
CHN/98'B43/1998/G1P[x]	
CHN/Chi-78/2002/G1P[x]	
BGD/Dhaka16/2003/G1P[8]	
THA/CMH022/2004/G1P[8]	
BEL/BE00006/2005/G1P[8]	
CHN/Z678/2006/G1P[8]	
IND/61060/2006/G1P[8]	
KOR/CAU219/2006/G1P[8]	
AUS/CK00047/2006/G1P[8]	
USA/LB2719/2006/G1P[8]	.....H.....I.....	
CHN/AS4/2007/G1P[8]	
RotaTeq/G1	S.....
Rotarix/G1
