

**Table S1:** Accession numbers for complete genome sequences or contigs included in the whole-genome phylogeny

<b>Name</b>	<b>Accession number</b>
EC_042	NC_017626
EC_536	NC_008253
EC_55989	NC_011748
EC_ABU_83972	NC_017631
EC_APEC01	NC_008563
EC_ATCC_8739	NC_010468
EC_BL21	NC_012947
EC_B_REL606	NC_012967
EC_BW2952	NC_012759
EC_CFT073	NC_004431
EC_E24377A	NC_009801
EC_clone_Di14	NC_017652
EC_clone_Di2	NC_017651
EC_DH1	NC_017625
EC_ED1a	NC_011745
EC_HS	NC_009800
EC_IAI1	NC_011741
EC_IAI39	NC_011750
EC_IHE3034	NC_017628
EC_K12_DH10B	NC_010473
EC_K12_MG1655	NC_000913
EC_K12_W3110	NC_007779
EC_KO11FL	NC_016902
EC_LF82	NC_011993
EC_NA114	NC_017644
EC_O103_H2_12009	NC_013353
EC_O111_H_11128	NC_013364
EC_O127H6_E2348_69	NC_011601
EC_O157_H7_EC4115	NC_011353
EC_O157_H7_EDL933	NC_002655
EC_O157_H7_Sakai	NC_002695
EC_O157_H7_TW14359	NC_013008
EC_O26_H11_11368	NC_013361
EC_O55_H7_CB9615	NC_013941
EC_O55_H7_RM12579	NC_017656
EC_O7_K1_CE10	NC_017646
EC_O83_H1_NRG_857C	NC_017634
EC_P12b	NC_017663
EC_S88	NC_011742
EC_SE11	NC_011415
EC_SE15	NC_013654
EC_SMS_3_5	NC_010498
EC_UM146	NC_017632
EC_UMN026	NC_011751
EC_UMNK88	NC_017641
EC_UTI89	NC_007946

<b>Name</b>	<b>Accession number</b>
EC_W	NC_017635
EC_Xuzhou21	NC_017906
SB_CDC_3083_94	NC_010658
SB_Sb227	NC_007613
SD_Sd197	NC_007606
SF_2002017	NC_017328
SF_2a_2457T	NC_004741
SF_2a_301	NC_004337
SF_5_8401	NC_008258
SS_53G	NC_016822
SS_Ss046	NC_007384
EC_101_1_contigs	NZ_AAMK020000*
04_8351	AFRL01
09_7901	AFRK01
EC_O103_H25_NIPH11060424	AGSG01
2011C_3493	NC_018658
2009EL_2050	NC_018650
2009EL_2071	NC_018661