

Table S3. Conserved fragments identified from the nonstructural polyprotein of human-infecting genogroups of norovirus

Genogroup	Conserved fragments ^{a)}
I	MMMASKDVVA, PKQQRDRPPRT, DTWLQRRLLS, TPDFQQDSKLE, VRDAVLAAINGLVS, AVIDMEVLSST, VTQLVRDKQ, LARANGLGL, LALTRLRAARA, QSAVTSILO, WADDDREVDYNE, LEQVMDTPVPWSY, DACQSLDKTTSSG, PHHKRKNDDWNG, DPFETLVPH, EGKNKGKTKKGRGRK, IEDGPLIYAHSKYK, IGDMEIFYEGHIYHAIYIGQGKTIGVHSPQAASI, QRLTYDQLKELENEPWPYAAITNNCYEFCC, KKKPLNVLNLLSNCDWTFMGVVE, FIASLLPDFHLQGPEDLARDLVP, ILGGIGLAIGFTRDKV TKVMKSAVDGLRAATQLGQYGLEIFS, IKKYFFGGDQTEKTLKGIE, ARAYMNILDNEEEKARKLSVR, ADPHVVSSTNALISRISMARSALAKA QAEMT, RPVVIMMCGPPGIGKTKAAEHLAKRLANEIRPGGKVLVPREAVDHWGQYHGEEVMLWDDYGMSKI, EDCNKLQAIADTAPLTN CDRIENKGMQFVSDAIIITNAPGPAPVDFVNLGPVCRVDFLVYCSAPEVEQ, DFSHLKMELAPQGGFDNQGNTPFQKGVMPKPTTLNRLLI QAVALTMERQDEFQLQG, AGSALVVRNAVCRMFGTGT, GPIGHDDVIERYGLCETEEEE, NYNAFSRRGLSDEEYEEYKKIREEK, GNYSIQEY LEDRQRYEEELAEVQAGDGGIGETEMEIRHRVFKSKSKK, QEERRQLGLVTGSDIRKRPIDWTPPKN, ISFEAPPTLWSRVKFGSGWGF WVSPTVFITTTTHVIP, IAIHRAGEFTQFRFSKK, RPDLTGMVLEEGCPEGTVCSILIKRDSGELLPLAVRMGAIASMKIQRVLVHGQSGMMLTGA NAKGMDLGTIPGDCGAPYVHKR, NDWVVCGVHAATAKSGNTVVCVQAGEGETTLEGDKGHYAGHEIVRYG, GPALSTKTKFWKSTPEP LPPGVYEPAYLGGRRPRV, GGPSLQVLRDQLKPFAPRGRMPPEGLLEAAVETVTS, FVRELGEQAAHANNMYE, YTAALKDELVKPEKVY, KIKKRLLWGADLGTVIRAARAFGPFCDAIKSHVIKLPKIVGMN, HFDADYTAWDSTQNRQIMTESFSIMCRLTASPELA, VVAQDLLAPSEMD VGDYVIRVKEGLPSGFPCSTQVNSINHWITLCALSEVTGLSPDIVQSQSYFSFYGDDEIVSTDIEFDP, RLTQVLKEYGLKPTRPDKTEGPIIVR, QVDGLVFLRRTISKDAAGFQGRDLRASIERQL, QRKQVLISLLGEASLHGEKFYRKIASRVIQEIKTGGLEMYVPGWQAMFRWMRFDLGLWT GDRDLLPEFVNDDGV
II	IPPPPPNGED, TAYSVPLS, VLGVHKPPAAISLA, IELTPLSLYWR, RTTGFFRPYQ, WNRKPLPTMDD, LSSLFTRPI KDL, KPLNILNILA, CDWTFAGIVE, MISGRPGIGKTH, AFRQLAAENKYG, ARIRYYVKCFQE, YSLIQIAGAAFTV, QIQIHKSGEFCR, RFPKPIRPDV, GMILEEGAPEGTV, EGEATLEG, GTYCGAPILGPG, WNG ESFTG, PVYTAALKDELVK, PTRPDKTEGPLVI, RDPAGWFGKLDQ, ETMIPHSQRP, QLMALLGEASLHGP, FYSKVSCLVI, NELAMVRAIEDAVLD, PGDCGCPYIYKRGND, APKLSKTKFWRSSN, ELKEGGMDFYVPRQE, FCCWVLDLNDWSLSRR, MIAPLLGDYELQGPEDLAVELVPVVMGGIGLVLGFT, EKIGKMLSSAASTLRACKDLG, YGLEILKLVKMWFFPKK, EAIENNHMTTLLKDKDSL, TYMKTLDMEEEKARKLSTKSASPDIVGTINALLARIAAARSLVHRAKEELSSR, TL SGDQRVGLVPRNGVDHWDAYKGERVVWDDYGMSNPI, DALRLQELADTCPLTNCRIENKGGK, NPAPLDYVNFACSRRIDFLVYADAP, VEKAKRDFPGQPDMMWKDAFK, LAPQGGFDKNGNTPHGKG, GRGKKHTAFSSKGLSDEEYDEYKRIEREENGKYSIEEYLQDRDRYEEELAIK KATEEDFCEEEE, KIRQRIFRPTRKQRKEERA, LGLVTGSEIRKRNPDDFKPKG, RSDVYNEKLDFAEPPS, FGSWGFWVSPSLFIT, LIKRP TG ELMPLAARMGTHATMKIQGRMVGGQMGMLLTGSNAK, VVIGVHTAAARGGNTVICATQG, PLPPGTYPAYLGGRRPRVKGPSLQQVMR DQLKPFTEPRGKPP, KWSYQAACASLDKTTSSG, LADQASKANLMEYEGKHM, KIKKRLLWGSGLSTMIRCARAFGLMDEMKA, RVGMN MNEDGPIIFEKHSRYKYHYDADYSRW DSTQQR, AALEIMVRFSAEPQLAQIWAEDLLAPSVVDVGDFKI, INEGLPSGVPCTSQWNSIAHWLLT LCALSEVT, LSPDIVQANSMSFSGYGDDEIVSTDIKLDP, SILRQLYWTRGPNHEDP, RWMRFSGLSTWEGDRNLAP
IV	MKMASNDASVA, GGVFANMKVG, DTIEGLPDL, RQVKCVPPM, LASRISKLL, VTTIEGFKKAVGDV, DGEAVLEGN, LAAVVAEDL, EPQTGSL LEMYDGSFYHYAIYIENGLVAGINRPSKALTATVDVEPIGLWVRVYTPPFSVSTSALYHLQGEKFPYNAFDNNCYNFCCQVLELDDCW MR RKYVQRTTGFDPYQSWNPKPSQYVADSKLERVGDALLTALGALFSKPIKNIIGKLPNLNLLSSCDWTF, ILIAELFDVYWEPPDVT, FLMP LLDDFELQGPEDLAAEIVPIILGGIGMVVGFATAEKAGRLLSSAAATLRATKELGNYGLEIVKLVKMWFFPKKESDMN, MVRNIEDAVLDLEAVE NNNHITHLLKDKENMA, FLRTLDLEEEKARKLSTKAASPDIVASVNALLARIAAVRSLAFKAKEEMCARQRPVVVMISGRPGIGKTHYAR, DGR VGLVPRNGVDHWDAYRGEPPVVWDDYGMGNIIDAMMLQELADTCPTLNCRIENKGMFESDIVLTNTPNPSPMDYVNM EAVARR VDFLVYAESPEIEKAKRDFPGDPKAWKPHFKDDHSHLVLTAPQGGFDK, VKNITPNGLVARAVALLAVERRDEFQLQG, TYNFDSQSVAFRK LAADNKYGLAETLRVGNKLR, FKKCRIIWKGVTYDLESDGKGSV, IDRVSQSMVQTTGEIHQAVLRRLQARVRYVMTAQNVVYGLLQAAGA AFVLNRIFRRAENPFSSRM, EEEGKKKGKNGKQGRGRKHTAFSSKGLSDEEYEEFKQIREERGKYSIQEYLEDRDRFEEVAYACAGGDCDDIE ISRIRNSIFRPSRKQRKEERVKLGLVTG, EIRKRPDDFQPKGKLWADDDRTVDYNEKLDFAEAPASIVARIVQLGTGWGFWVSPNLLITSTHVIP KGVEELFGVPI, CGEFTRLRFPKMIRPDVTGMILEDGAPEGVCSILVKRPTGECLPLAVRMGTQATMKIQGKVVSQGLGMLLTGSNAKNMD LGTTPGDCGCPYVYKRGNDYVVVGHTAAGRGGNTVICAVQT, DNGTYCGAPIVSKGNAPQLSTKTKFWRSSVEPLPPGTYPAYLGGRRDP RV, GPSLYQVMRDQLKHFTAPRGRPVKP HLLQAAVKTIENVLEQTIDPP, PWTYAQACQSLDKTTSSGWPHHVQKNTHWNGESFTGPLAD QAS, KSMTPTQYTAALKDELVKP, KVKKRLLWGADLGMVRCARAFGPFTDALKKCC, KVLNINEEGPIIFEKHSQYE, HYDADYSRW DSTQQ REVLAAALGIMTKFTAEP, APSMLDVGDYVVQVNEGLPSGVPCSTQLNSIAHWI, TLTSMAEATGLDPDIVQANSYFSFYGDDEIVSTD, KFNP EVLTLKLKAVGLVPTRPDKTEGPLVVSRLKLEGLTFLRRTITRDVGVFFGRDLKDSILRQLYWTGKPNHQDPSESMLPHQNRATQLMALLGES A LHGQNFYKKVSGMVIKEIKNGGHEFYVPKFESMYKWMRFSGLSTWEGDRDLAPDYVNEDGVE

(Continued on the next page)

Table S3. Continued

Genogroup	Conserved fragments ^{a)}
VIII	MRMASSDAATAFASQNASHTDNPQNKASILSNMAVTFKKALGARPKASRQHTQTQKPSTPGLAAQIPSPPPNGEDATHFKKETKITITGLPD LSTVTQPSNHSASFVPLSQREHNDATEPLPGTILEMWDGEFYHYSIYVDNGKALGVHKPPAAISMATIDLTPIISLYWRPVYTPQYLVHPETL KKLAGESFPYTAFFNNCYTFCCWVLDLNDSWLSRRSIQRTTGFFKPYQAWNRPKPLPTMDDSKIKKVANAFLCALSSLFSPKIDILGKLKPLN ILNILASCDWTFAGIVESLILAAELFNLFWTPPDVSAFIASIIIGDFEMQGPENIAVELVPVIMGGIGMVLGFTAEEKIGRMLSSAASTLRACKDLGA YALDILKLVKMWFFPKDEAAEMATLRAIEDAVLDMEAIGNNHMTALLKDKDSLAYSMTKLDMEEEKARKLSTKSSSPDIVGTINAILARIAAA RSLHKAKEEMFSRARPVVLMISGRPGIGKTHLARQIAKSIASSMSGDQRIGLVPRNGVDHWDAYRGERVVLWDDYGMSTNIQDALTQLELA DTCPLTLNCDRIENKGMFSDSVIIITNLNANPAPLDYVNFACSRRIDFLVYADAPDIEKAKKDFPGQPDMDWRDHFADSSHIKLSLAPQGGF DKNGNTPHGKGTMTKTLTSLTARASGLLHERKDEFQLQGDSIQTFNFDTNKVSAFRQLAADNKYSFVETMKVGAHLKNVRTMEDLKSIAK GVTFFKRCQIYKGATYTLASDQGSVSVSKIKSTASQTANELHTALSHLRQARARYISCFQDTIYSIIQIAGASFVTHRISKRFWSRWSKPSRS PQEEEQSPSPKATGRFIESKDDTDTEGKKGKNTGRGRKHTAFSSKGLSDEEYDEFKRIEEKNGKYSIEEYLQDRDRFYEEALAIARATEEDFCE EEEAKIRQIRFRPTKKQRKEERANLGLVTGSEIRKRNPDFFQPKGNLWADDTRSDVYNEKIDFEAPPSIWSRVNFGSGWGFVWSSSLFISSTH VIPKGISEAFGVDIKQIHKSGEFCRFRFPPIRTDVTGMILEEGAPEGTVASILKRPTGEMMPLAARMGTHASMKIQGRTVGGQMGMLLTG ANAKNMDLGTTPGDCGCPYIFKRGNDIVVAGVHTAAARGGNTVICATQGADGEATLEGDDKGTGYCGAPILGPGNAPKLSTKTKFWRSSNA ALPPGTYPAYLGGKDPVKKGPSLQQVMREQLKPFTEPRGKPPKPSVLAANKNTIMNVLEQTINPAKPWSYSQACASLDKTTSSGSPHHL RKNDHWNGESFTGPLADQASKANLMEYQAKHMSPVYTAALKDELVKTDKIYNKIKRLLWGSDDLSTMIRCARAFGLMDSMKASCTMLPC RVGMNMNEDGPIIFDKHAKYKCHYDADYSRW DSTQQRILSAAMEIMVKFSAEPQLAQVAEDLLAPSQLDVGDFKVSIEGLEPSGVPCTSQ WNSIAHWIITLSAMSEVSNLSPDVIQAHSMFSFYGDDEIVSTDINLDPAKLTAKLREYGLRPTRPDKTEGLPVIENLHGLTLFRRHITRDPAGW FGKLDQSSILRQMYWTRGPNHNDNPESMVPHSQRATQLMALLGEASLHGSPFSYKISKMVITEIKSGGMDFYVPRQEAMFRWMRFSDLST WEGDRNLAPSFVNEDGV
IX	MASNDVVTALGSQKATNDSYSTPPPNKEEASVLANVKVGFKKILGAVPKAPKQHSGSIQKPPIVEIDGVTMRVPSPPNGEDAVHFVKETETIK GLPDLSTVENESEHSPYTPPLSEREHRPATEPLPGTILEMWDGEFYHYSIYVDNGKALGVHKPPAAISLATIDLTPIISLYWRPVYTPPYLVHP ETLKLAGEKFPYTAFFNNCYNFCCWVLDLNDSWLNRRSITRTTGFFKPYQSWNRKPLPTVDDGKIKKVANAFLCALGSLFSKPIKDLLGKL KPLNLLNLLASCDWTFAGVETVILAAELFNVFWTPPDVSNFIASIIIGDFEMQGPEDLAVELVPVIMGGIGMVLGFTAEEKIGRMLSSAASTLRA CKDLGNYALDILKLVKMWFFPKKEEKAEMETLRAIEDAVLDMEAIGNNHMTALLKDKDSLAYSMTKLDMEEEKARRLSTKSSSPDIVGTINAIL ARIAAARSLHKAKEEMFSRARPVVVMVSGRPGIGKTYLARQLAKSIANSMSGDQRVGLVPRNGVDHWDAYRGERVVLWDDYGMGNTIKD ALTQLADTCVPTLNCRIENKGMFSDSVIIITNLNANPAPLDYVNFACSRRIDFLVYAEAPDIEKVKKDFPGQPDMDWRDHFADSSHIKLSLAPQGGF DKNGNTPHGKGTMTKTLTSLTARVMGLVCERKDEFQLQGDELQVYNFDTNKVSAFRKLAADNKYSFVETMKVGAHLKNVKT LEDLKSALKGVKFECEIYKGAKYRVASDGCOSVSVSKIKDVVSQTSNEVHTALLRLRQARARYISCFQDLIYTLIQVAGASFVVRHISKRF WDRWVKPSDSPQEEEQPSSEVATGRWEIEPKDTPGEGKKGKNTGRGRKHTAFSSKGLSDEEYDEFKRIEEKNGKYSIEEYLQDRDRFYEE VAVARATEEDFCEEEVAKIRQIRFRPTKKQRKEERGLVGLVTGSEIRKRNPDFFQPKGNLWADDTRSDVYNEKLEFEAPPSVWSRVPLGTGW GFVWSSNLLITTTTHVLPKGLKELFGVDIKQVQIHKSGEFCRFRFPPIRPDVTGLILEEGAPEGTVCSILVKRPTGEMIPLAVRMGTHASMKIQG RTVGGQMGMLLTGANAKNMDLGTNPDCGCPYIFKRGNDIVVAGVHTAAARGGNTVICATQGADGEAVLEGGEDKGTGYCGAPILGLKAP KLSTKTKFWRSSPDALPPGTYPAYLGGKDPVKKGPSLQQVMREQLKPFTEPRGKPPKPNVLDEAKKTVMNVLEQTINPAKPWSYSQAC ASLDKTTSSGSPHHLRKNDHWNGESFTGPLADQASKANLMEYQAKHMSPVYTAALKDELVKTDKIYKKIKRLLWGSDDLGTVMVRCARAFG GLMDSMKESCVMLPCRVMNMNEDGPIIFDKHAKYKYHYDADYSRW DSTQQRISLSAAMEVMVKFSAEPQLAQVAEDLLAPSQLDVGDF VVSQEGLEPSGVPCTSQWNSIAHWIITLSAMAEVSGLSPDVIQAHSCFSFYGDDEIVSTDINLDPAKLTAKLREYGLVPTRPDKTEGLPVIDEL HGLTLFRRHITRDPAGWFGKLDQDSILRQLYWTRGPNHENPYECMVPHSQRATQLMALLGEASLHGPPQFYKVKVMVINEIKSGGLEFYVPR QEAMFRWMRFSDLSTWEGDRNLAPDGVNEDGVE

^{a)}Identified using Protein Variability Server (PVS) (<http://imed.med.ucm.es/PVS/>), conserved residue H ≤ 1.0 .