

## Annotations - PepMix™ PepMix HCV (Capsid Protein) Ultra

Hepatitis C virus Capsid Protein, average coverage of 1332 different protein sequences is 93.2 %

All sequences are based on the European Hepatitis C Virus database (euHCVdb.ibcp.fr/euHCVdb, Combet C., Garnier N., Charavay C., Grando D., Crisan D., Lopez J., Dehne-Garcia A., Geourjon C., Bettler E., Hulo C., Mercier PL., Bartenschlager R., Diepolder H., Moradpour D., Pawlotsky J.M., Rice C.M., Trepo C., Penin F. and Deléage G. (2007) euHCVdb: the European hepatitis C virus database. *Nucleic Acids Res.*, **35**:D363-D366)

### 109 Protein sequences are covered at 100 %:

AB077701\_C\_D1b; AF207758\_C\_C1b; EF652664\_C\_D1b; EF652524\_C\_D1b; AB008441\_C\_P1b; AB049096\_C\_C1b; AB049099\_C\_C1b; EF652744\_C\_D1b; EU155259\_C\_C1b; AF208024\_C\_C1b; AB049087\_C\_C1b; FJ607070\_C\_D1b; FJ607081\_C\_D1b; FJ607095\_C\_D1b; FJ607114\_C\_D1b; AB077705\_C\_D1b; EU155318\_C\_C1b; EU155331\_C\_C1b; EU256085\_C\_C1b; EU155361\_C\_C1b; D10934\_C\_C1b; AF207770\_C\_C1b; AB077737\_C\_D1b; EF652743\_C\_D1b; EF652512\_C\_D1b; FN665803\_C\_D1b; EF652670\_C\_D1b; AF165045\_C\_C1b; D10074\_C\_P1b; EU155225\_C\_C1b; EF652750\_C\_D1b; HM041986\_C\_D1b; AY045702\_C\_C1b; EU256077\_C\_C1b; FJ607098\_C\_D1b; AM262455\_C\_D1b; EU660386\_C\_C1b; AY070174\_C\_P1b; AB049094\_C\_C1b; AB086048\_C\_D1b; AB154206\_C\_C1b; DQ061375\_C\_P1b; AF165053\_C\_C1b; EF652575\_C\_D1b; AB154187\_C\_C1b; AB077727\_C\_D1b; EF652602\_C\_D1b; AY460204\_C\_C1b; FN666283\_C\_D1b; DQ061347\_C\_P1b; DQ061342\_C\_P1b; AF207772\_C\_C1b; AB077702\_C\_D1b; AM262505\_C\_D1b; AB077715\_C\_D1b; AB520610\_C\_C1a; EF560527\_C\_P1a; EU781791\_C\_C1a; EU362877\_C\_C1a; EF407451\_C\_C1a; AF268576\_C\_P1a; EU781805\_C\_C1a; EU362893\_C\_C1a; EF560548\_C\_P1a; EU781756\_C\_C1a; EU781818\_C\_C1a; EF407454\_C\_C1a; EF407503\_C\_C1b; EU781807\_C\_C1a; EU781812\_C\_C1a; AB077720\_C\_D1b; AF165059\_C\_C1b; D00574\_C\_P1b; AF207774\_C\_C1b; AB077729\_C\_D1b; AB442221\_C\_C1b; EU155224\_C\_C1b; AY365213\_C\_D1b; EU155369\_C\_C1b; AB077733\_C\_D1b; EU234062\_C\_C1b; FJ411255\_C\_P1b; EU155357\_C\_C1b; FJ607122\_C\_D1b; AF207771\_C\_C1b; FJ911712\_C\_D1a; FJ607100\_C\_D1b; AB077713\_C\_D1b; HM041997\_C\_D1b; EU155307\_C\_C1b; AM285925\_C\_D1b; AM285926\_C\_D1b; EF652641\_C\_D1b; EF652797\_C\_D1b; GQ848749\_C\_P1a; AF238482\_C\_C2a; HM042001\_C\_D3a; GU814263\_C\_C3a; GQ356209\_C\_C3a; D14311\_C\_P3a; HM042002\_C\_D3a; HM042012\_C\_D3a; AM263134\_C\_D3a; DQ437509\_C\_C3a; D45193\_C\_P4a; DQ418782\_C\_C4a; DQ988075\_C\_C4a; FJ462434\_C\_C4q; FJ462439\_C\_C4r

### 103 Protein sequences are covered at 99 %:

EU256091\_C\_C1b; AM262489\_C\_D1b; AF207752\_C\_C1b; FJ607105\_C\_D1b; EF652747\_C\_D1b; FJ607075\_C\_D1b; EF652535\_C\_D1b; EF407462\_C\_C1b; EU255962\_C\_C1b; HM041991\_C\_D1b; U45461\_C\_P1b; EU155315\_C\_C1b; EF652569\_C\_D1b; EF652667\_C\_D1b; EU256103\_C\_C1b; AM262493\_C\_D1b; EF652677\_C\_D1b; EU155254\_C\_C1b; EF652751\_C\_D1b; EF407490\_C\_C1b; EU155334\_C\_C1b; FJ607102\_C\_D1b; EF407471\_C\_C1b; EF652593\_C\_D1b; AB077709\_C\_D1b; AB077710\_C\_D1b; FJ607078\_C\_D1b; FJ607104\_C\_D1b;

DQ061338\_C\_P1b; AF359349\_C\_D1a; EU862832\_C\_C1a; DQ061320\_C\_P1a;  
DQ061306\_C\_P1a; EU362880\_C\_C1a; FN666317\_C\_D1a; EU781813\_C\_C1a;  
EF560545\_C\_P1a; FN666319\_C\_D1a; GQ870506\_C\_P1a; HM000535\_C\_P1a;  
DQ061322\_C\_P1a; EU862836\_C\_C1a; DQ061304\_C\_P1a; HM041979\_C\_D1a;  
HM041980\_C\_D1a; D14853\_C\_C1c; D16191\_C\_P1c; EU781748\_C\_C1a;  
EU781798\_C\_C1a; EF652577\_C\_D1b; AF268580\_C\_P1a; FJ607096\_C\_D1b;  
EF652775\_C\_D1b; EF652771\_C\_D1b; FN666394\_C\_D1a; EU781797\_C\_C1a;  
DQ061369\_C\_P1b; FJ911717\_C\_D1b; AF054247\_C\_C1b; AF054257\_C\_C1b;  
DQ061365\_C\_P1b; FJ607106\_C\_D1b; AB077706\_C\_D1b; EF407494\_C\_C1b;  
FJ024277\_C\_C1b; DQ061376\_C\_P1b; EF652682\_C\_D1b; FJ607128\_C\_D1b;  
FJ607103\_C\_D1b; EU677250\_C\_C1a; AM262479\_C\_D1b; EU155223\_C\_C1b;  
AM285935\_C\_D1b; AM285880\_C\_D1b; AM286085\_C\_D1b; EF652696\_C\_D1b;  
EF652526\_C\_D1b; U01214\_C\_C1b; EF652650\_C\_D1b; EF652654\_C\_D1b;  
GQ848746\_C\_P1a; FJ911710\_C\_D1a; FJ911716\_C\_D1a; AB079076\_C\_P1a;  
AB079078\_C\_P1a; AB079081\_C\_P1a; D10077\_C\_P2b; AM263151\_C\_D3a;  
AM263112\_C\_D3a; AM263154\_C\_D3a; AM263095\_C\_D3a; EU099414\_C\_D3;  
AM263063\_C\_D3a; AM263077\_C\_D3a; AM263148\_C\_D3a; AM263111\_C\_D3a;  
HM042008\_C\_D3a; HM042016\_C\_D3a; HM042006\_C\_D3a; GQ356217\_C\_C3a;  
DQ516084\_C\_C4a; DQ418784\_C\_C4a; DQ988073\_C\_C4a

**128 Protein sequences are covered at 98 %:**

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AM262487\_C\_D1b; AM262488\_C\_D1b; EF652666\_C\_D1b; EF407502\_C\_C1b;  
EF652669\_C\_D1b; EF652529\_C\_D1b; EF652673\_C\_D1b; AM262482\_C\_D1b;  
EU155382\_C\_C1b; EU256090\_C\_C1b; AB077746\_C\_D1b; FJ607084\_C\_D1b;  
AF207757\_C\_C1b; AM262481\_C\_D1b; FJ607108\_C\_D1b; FJ607129\_C\_D1b;  
EF407489\_C\_C1b; EU155217\_C\_C1b; FJ607089\_C\_D1b; EF652754\_C\_D1b;  
AM262462\_C\_D1b; EU256089\_C\_C1b; EF652772\_C\_D1b; DQ061361\_C\_P1b;  
DQ061333\_C\_P1b; AB154188\_C\_C1b; D14484\_C\_C1b; AB077708\_C\_D1b;  
EU781774\_C\_C1a; EU255984\_C\_C1a; EU362896\_C\_C1a; EF560524\_C\_P1a;  
EF560528\_C\_P1a; FN666392\_C\_D1a; FN666389\_C\_D1a; GQ870490\_C\_P1a;  
GQ848700\_C\_P1a; DQ838740\_C\_C1a; GQ870473\_C\_P1a; M74808\_C\_P1a;  
EF560546\_C\_P1a; GQ870485\_C\_P1a; AF268573\_C\_P1a; AJ851228\_C\_D1;  
EU370636\_C\_P1a; EU781803\_C\_C1a; M55970\_C\_P1a; EF407421\_C\_C1a;  
EF407428\_C\_C1a; DQ061330\_C\_P1a; DQ061301\_C\_P1a; DQ061314\_C\_P1a;  
EF652765\_C\_D1b; EU155256\_C\_C1b; EF652597\_C\_D1b; EF652600\_C\_D1b;  
HM053611\_C\_D1b; DQ061341\_C\_P1b; EF652562\_C\_D1b; EU255960\_C\_C1b;  
EU256062\_C\_C1b; AF268574\_C\_P1a; AM262470\_C\_D1b; AM262473\_C\_D1b;  
AM262499\_C\_D1b; AM285906\_C\_D1b; AM285977\_C\_D1b; AM285842\_C\_D1b;  
AM285699\_C\_D1b; AM285749\_C\_D1b; AM285760\_C\_D1b; AM285986\_C\_D1b;  
EF652571\_C\_D1b; EF652573\_C\_D1b; EU155317\_C\_C1b; EF407465\_C\_C1b;  
EF407495\_C\_C1b; AM286098\_C\_D1b; AM286100\_C\_D1b; AM286087\_C\_D1b;  
AM285930\_C\_D1b; AM286045\_C\_D1b; AM285941\_C\_D1b; AM397949\_C\_D1b;  
AM286091\_C\_D1b; AM286121\_C\_D1b; AM286046\_C\_D1b; AM286027\_C\_D1b;  
AM286041\_C\_D1b; AM286036\_C\_D1b; AM286031\_C\_D1b; EF652663\_C\_D1b;  
EF652522\_C\_D1b; EF652523\_C\_D1b; EF652542\_C\_D1b; AF207769\_C\_C1b;  
FJ911713\_C\_D1a; FJ911726\_C\_D1a; EF652651\_C\_D1b; FJ911733\_C\_D1b;  
AY232734\_C\_C2b; AY232736\_C\_C2b; AY232730\_C\_C2b; AM263127\_C\_D3a;

GQ356215\_C\_C3a; AM263105\_C\_D3a; AM263132\_C\_D3a; X76918\_C\_C3a;  
 AM263141\_C\_D3a; AM263135\_C\_D3a; AM263136\_C\_D3a; AM263162\_C\_D3a;  
 AM263082\_C\_D3a; AM263143\_C\_D3a; EU392175\_C\_C4f; DQ418783\_C\_C4a;  
 FJ462440\_C\_C4o; FJ839869\_C\_C4t; EU392172\_C\_C4d; FJ462433\_C\_C4m

**142 Protein sequences are covered at 97 %:**

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 EF652541\_C\_D1b; AJ132997\_C\_C1b; DQ061359\_C\_P1b; AF176573\_C\_C1b;  
 EF407463\_C\_C1b; FJ607113\_C\_D1b; EU482874\_C\_C1b; AM262461\_C\_D1b;  
 AM262456\_C\_D1b; DQ061357\_C\_P1b; EU482860\_C\_C1b; EF652776\_C\_D1b;  
 DQ061362\_C\_P1b; EU781814\_C\_C1a; EU370645\_C\_P1a; GQ848651\_C\_P1a;  
 EU677256\_C\_C1a; EU781801\_C\_C1a; GQ870457\_C\_P1a; EF407417\_C\_C1a;  
 EU155269\_C\_C1a; FN666391\_C\_D1a; GQ870463\_C\_P1a; AM910652\_C\_C1g;  
 DQ838741\_C\_C1a; EU370595\_C\_P1a; EU862831\_C\_C1a; EU370624\_C\_P1a;  
 EU370625\_C\_P1a; AY956466\_C\_C1a; EU370623\_C\_P1a; EU781789\_C\_C1a;  
 M62382\_C\_P1a; AY651061\_C\_C1c; GQ870475\_C\_P1a; D00831\_C\_P1a;  
 DQ061335\_C\_P1b; EU781811\_C\_C1a; DQ838744\_C\_C1a; AB154181\_C\_C1b;  
 EF652599\_C\_D1b; FN666298\_C\_D1a; FN666381\_C\_D1a; EF652780\_C\_D1b;  
 D00832\_C\_P1b; AB016785\_C\_C1b; DQ061360\_C\_P1b; AB077741\_C\_D1b;  
 FJ607116\_C\_D1b; GU451221\_C\_C1b; DQ061372\_C\_P1b; M74806\_C\_P1b;  
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 EF652766\_C\_D1b; EU370588\_C\_P1a; AB077718\_C\_D1b; FJ607130\_C\_D1b;  
 AM262492\_C\_D1b; FN666288\_C\_D1b; FJ607112\_C\_D1b; AM262500\_C\_D1b;  
 AM286170\_C\_D1b; AM285868\_C\_D1b; AM285719\_C\_D1b; GQ913860\_C\_D1;  
 AM286181\_C\_D1b; AM286182\_C\_D1b; FJ607099\_C\_D1b; EF652555\_C\_D1b;  
 EU155308\_C\_C1b; EU155316\_C\_C1b; GQ913864\_C\_D1; AF139594\_C\_C1b;  
 AM286032\_C\_D1b; AM286113\_C\_D1b; AM286060\_C\_D1b; AM286074\_C\_D1b;  
 AM285879\_C\_D1b; AM286089\_C\_D1b; AM397948\_C\_D1b; AM286079\_C\_D1b;  
 AM285899\_C\_D1b; AM286104\_C\_D1b; AM286062\_C\_D1b; AM285927\_C\_D1b;  
 AM286090\_C\_D1b; AM286059\_C\_D1b; AM286119\_C\_D1b; AM286051\_C\_D1b;  
 AM262465\_C\_D1b; HM041995\_C\_D1b; D11168\_C\_C1b; FJ607123\_C\_D1b;  
 EF407467\_C\_C1b; EF652801\_C\_D1b; EF652658\_C\_D1b; EF652798\_C\_D1b;  
 EF652656\_C\_D1b; GQ870503\_C\_P1a; D31972\_C\_P2c; AB559564\_C\_C2b;  
 AY232740\_C\_C2b; HM042018\_C\_D3a; GQ356212\_C\_C3a; EU099419\_C\_D3;  
 AM263157\_C\_D3a; AM263159\_C\_D3a; AM263171\_C\_D3a; AM263107\_C\_D3a;  
 AM263106\_C\_D3a; AM263114\_C\_D3a; AM263118\_C\_D3a; AY956467\_C\_C3a;  
 AM263071\_C\_D3a; AM263073\_C\_D3a; AM263078\_C\_D3a; L12355\_C\_P3a;  
 AM263146\_C\_D3a; HM042009\_C\_D3a; GQ356204\_C\_C3a; GQ356203\_C\_C3a;  
 AM263109\_C\_D3a; AM263174\_C\_D3a; HM042003\_C\_D3a; AM263087\_C\_D3a;  
 Y11604\_C\_C4a; DQ364460\_C\_PRF\_1b2b

**123 Protein sequences are covered at 96 %:**

EU155260\_C\_C1b; EF652782\_C\_D1b; EF652791\_C\_D1b; AB442219\_C\_C1b;  
 EF652741\_C\_D1b; GQ913863\_C\_D1; HM041987\_C\_D1b; GQ913858\_C\_D1;  
 EF652692\_C\_D1b; M86779\_C\_P1b; EF652688\_C\_D1b; EF652683\_C\_D1b;  
 EF652519\_C\_D1b; EF652514\_C\_D1b; EF652735\_C\_D1b; DQ061296\_C\_P1b;  
 AB077736\_C\_D1b; FJ607094\_C\_D1b; AF165063\_C\_C1b; FJ607072\_C\_D1b;  
 DQ061377\_C\_P1b; GU451220\_C\_C1b; FJ607077\_C\_D1b; FJ607083\_C\_D1b;

AF165047\_C\_C1b; EF407469\_C\_C1b; EU256101\_C\_C1b; AB086043\_C\_D1b;  
EF652674\_C\_D1b; DQ061336\_C\_P1b; EU155216\_C\_C1a; EF407416\_C\_C1a;  
EU781755\_C\_C1a; EF560526\_C\_P1a; EU677253\_C\_C1a; EF560557\_C\_P1a;  
DQ061310\_C\_P1a; EU781785\_C\_C1a; GQ848698\_C\_P1a; EF652769\_C\_D1b;  
AB077712\_C\_D1b; AB077714\_C\_D1b; AF207756\_C\_C1b; AB442222\_C\_C1b;  
EU256003\_C\_C1a; GQ848704\_C\_P1a; AB077711\_C\_D1b; AB077704\_C\_D1b;  
M58335\_C\_C1b; DQ061334\_C\_P1b; AM262491\_C\_D1b; FN666387\_C\_D1a;  
EU482877\_C\_C1b; D85516\_C\_C1b; AM262478\_C\_D1b; AM262475\_C\_D1b;  
AM262474\_C\_D1b; EF407486\_C\_C1b; AM262497\_C\_D1b; AM262504\_C\_D1b;  
AM262508\_C\_D1b; AM285835\_C\_D1b; AM286017\_C\_D1b; AM286006\_C\_D1b;  
AM286166\_C\_D1b; AM285828\_C\_D1b; AM285761\_C\_D1b; AM285864\_C\_D1b;  
AM286012\_C\_D1b; AM285839\_C\_D1b; AM285832\_C\_D1b; AM285685\_C\_D1b;  
AM285901\_C\_D1b; AM285993\_C\_D1b; AM285762\_C\_D1b; AM285834\_C\_D1b;  
AM262501\_C\_D1b; FJ607090\_C\_D1b; AM286116\_C\_D1b; AM286094\_C\_D1b;  
AM286095\_C\_D1b; AM286075\_C\_D1b; AM285942\_C\_D1b; AM286126\_C\_D1b;  
AM286081\_C\_D1b; AM286065\_C\_D1b; AF165048\_C\_C1b; EF652676\_C\_D1b;  
FJ607121\_C\_D1b; AF207763\_C\_C1b; FJ911699\_C\_D1a; EF652806\_C\_D1b;  
EF652796\_C\_D1b; EF652653\_C\_D1b; AY236366\_C\_D1; AB079091\_C\_P1a;  
AB047645\_C\_C2a; D10075\_C\_P2a; AY070214\_C\_P2k; L38319\_C\_P2c; L38321\_C\_D2c;  
HM053610\_C\_D2; HM042007\_C\_D3a; GQ356210\_C\_C3a; GQ356211\_C\_C3a;  
AM263096\_C\_D3a; AM263131\_C\_D3a; HM042017\_C\_D3a; HM042005\_C\_D3a;  
AM263119\_C\_D3a; GQ180060\_C\_D3a; AM263125\_C\_D3a; GQ356207\_C\_C3a;  
AM263123\_C\_D3a; GQ180059\_C\_D3a; AM263086\_C\_D3a; EF589161\_C\_C4f;  
FJ025856\_C\_D4b; DQ418786\_C\_C4d; AY859526\_C\_C6a; DQ480517\_C\_C6a;  
U33435\_C\_D6; AY587845\_C\_PRF\_1b2k

**99 Protein sequences are covered at 95 %:**

EF652627\_C\_D1b; EF407481\_C\_C1b; EF407498\_C\_C1b; EU256083\_C\_C1b;  
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AB077743\_C\_D1b; EU781821\_C\_C1a; M74812\_C\_P1a; HM041981\_C\_D1a;  
EU781824\_C\_C1a; GQ848649\_C\_P1a; GQ848652\_C\_P1a; AF359345\_C\_D1a;  
GQ870479\_C\_P1a; L12353\_C\_P1a; EU781802\_C\_C1a; DQ061309\_C\_P1a;  
EF407420\_C\_C1a; GQ848655\_C\_P1a; FN666376\_C\_D1a; FN666378\_C\_D1a;  
FN666379\_C\_D1a; L02836\_C\_C1b; AF207767\_C\_C1b; EF407443\_C\_C1a;  
EU781782\_C\_C1a; EF652598\_C\_D1b; AF207762\_C\_C1b; M74813\_C\_P1b;  
EU155327\_C\_C1b; EF652659\_C\_D1b; DQ061349\_C\_P1b; AJ557444\_C\_P1a;  
EF652606\_C\_D1b; EF652732\_C\_D1b; AF207765\_C\_C1b; AB077721\_C\_D1b;  
FJ607111\_C\_D1b; FJ911734\_C\_D1a; AM262476\_C\_D1b; AB049091\_C\_C1b;  
EU155373\_C\_C1b; AB442220\_C\_C1b; AM262498\_C\_D1b; AM262510\_C\_D1b;  
AM285843\_C\_D1b; AM397934\_C\_D1b; AM285973\_C\_D1b; AM285987\_C\_D1b;  
AM285981\_C\_D1b; AM285754\_C\_D1b; AM285755\_C\_D1b; AM285695\_C\_D1b;  
AM285999\_C\_D1b; AM286183\_C\_D1b; AM285858\_C\_D1b; AM285837\_C\_D1b;  
AM286167\_C\_D1b; AM285753\_C\_D1b; AM285768\_C\_D1b; AM285696\_C\_D1b;  
AM286162\_C\_D1b; AM286003\_C\_D1b; AM285750\_C\_D1b; AM285865\_C\_D1b;  
AM285763\_C\_D1b; EF407480\_C\_C1b; FJ607065\_C\_D1b; M96362\_C\_C1b;  
FJ607080\_C\_D1b; GQ913859\_C\_D1; HM041988\_C\_D1b; AM286136\_C\_D1b;  
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FN666395\_C\_D1a; AB077742\_C\_D1b; AF207760\_C\_C1b; EF652795\_C\_D1b;  
EF652698\_C\_D1b; EF652712\_C\_D1b; AY231582\_C\_P1a; AF169005\_C\_C2a;

AF238485\_C\_C2a; AY232744\_C\_C2b; HM042010\_C\_D3a; AM263069\_C\_D3a;  
GQ356201\_C\_C3a; AM263164\_C\_D3a; AM263161\_C\_D3a; L38338\_C\_P4c;  
FJ025854\_C\_D4b; U94724\_C\_D4c; D88466\_C\_P6h

**104 Protein sequences are covered at 94 %:**

EF652790\_C\_D1b; EF652746\_C\_D1b; AF165064\_C\_C1b; EF407477\_C\_C1b;  
FJ607074\_C\_D1b; FJ607124\_C\_D1b; EF652753\_C\_D1b; AM262464\_C\_D1b;  
FJ607071\_C\_D1b; AB154182\_C\_C1b; EF407448\_C\_C1a; EU781757\_C\_C1a;  
GQ870472\_C\_P1a; EU781779\_C\_C1a; GQ870482\_C\_P1a; GQ870464\_C\_P1a;  
GQ870491\_C\_P1a; GQ870496\_C\_P1a; EU781819\_C\_C1a; EF407422\_C\_C1a;  
EF560558\_C\_P1a; EU362879\_C\_C1a; AB077745\_C\_D1b; AB077716\_C\_D1b;  
GU451222\_C\_C1b; AB008442\_C\_P1b; EF407459\_C\_C1b; AJ557443\_C\_P1a;  
EF652785\_C\_D1b; GQ870481\_C\_P1a; EF652660\_C\_D1b; EF652680\_C\_D1b;  
EF652731\_C\_D1b; AB080299\_C\_C1b; AM262480\_C\_D1b; EU257483\_C\_P1b;  
AB049093\_C\_C1b; DQ061308\_C\_P1a; EU155263\_C\_C1b; AB492220\_C\_P1b;  
AB492227\_C\_P1b; AB492228\_C\_P1b; AM285730\_C\_D1b; AM285724\_C\_D1b;  
AM397941\_C\_D1b; AM285721\_C\_D1b; AM285922\_C\_D1b; AM285804\_C\_D1b;  
AM397938\_C\_D1b; AM285697\_C\_D1b; AM285793\_C\_D1b; AM285825\_C\_D1b;  
AM285826\_C\_D1b; AM285747\_C\_D1b; AM285748\_C\_D1b; AM285713\_C\_D1b;  
AM286176\_C\_D1b; AM285820\_C\_D1b; AM285799\_C\_D1b; AM285722\_C\_D1b;  
AM286156\_C\_D1b; AM285802\_C\_D1b; AM285966\_C\_D1b; AM285964\_C\_D1b;  
AM285902\_C\_D1b; AM285831\_C\_D1b; AM285690\_C\_D1b; EU155280\_C\_C1b;  
AM285924\_C\_D1b; AM286117\_C\_D1b; AM286086\_C\_D1b; AM286112\_C\_D1b;  
AM286043\_C\_D1b; AM285928\_C\_D1b; AM286053\_C\_D1b; FN666388\_C\_D1a;  
FJ607068\_C\_D1b; AY308072\_C\_P1b; EF652756\_C\_D1b; EF652757\_C\_D1b;  
EF652520\_C\_D1b; DQ228493\_C\_D1b; EF652649\_C\_D1b; EF652722\_C\_D1b;  
EF652720\_C\_D1b; EF652723\_C\_D1b; EF652794\_C\_D1b; AF169004\_C\_C2a;  
AF238483\_C\_C2a; L38337\_C\_P2c; AY232732\_C\_C2b; AM263117\_C\_D3a;  
AM263144\_C\_D3a; AM263115\_C\_D3a; GQ356202\_C\_C3a; HM042004\_C\_D3a;  
AM263075\_C\_D3a; FJ839870\_C\_C4l; DQ480512\_C\_C6a; DQ859953\_C\_D6a;  
DQ480521\_C\_C6a; EU246930\_C\_C6a; D88469\_C\_P6a; D84264\_C\_C6k

**70 Protein sequences are covered at 93 %:**

EF652783\_C\_D1b; EU781752\_C\_C1a; EU370592\_C\_P1a; AB077728\_C\_D1b;  
EU862824\_C\_C1a; FN666393\_C\_D1a; GQ870489\_C\_P1a; FJ607118\_C\_D1b;  
AM262486\_C\_D1b; EF560537\_C\_P1a; EF652632\_C\_D1b; GQ870492\_C\_P1a;  
FJ607131\_C\_D1b; EU256084\_C\_C1b; EF407493\_C\_C1b; AF207753\_C\_C1b;  
FJ607069\_C\_D1b; D45172\_C\_C1b; AM262467\_C\_D1b; AM262469\_C\_D1b;  
AY940621\_C\_P1b; AB086054\_C\_D1b; AM262502\_C\_D1b; AM285708\_C\_D1b;  
AM285974\_C\_D1b; AM285700\_C\_D1b; FJ607107\_C\_D1b; AM285878\_C\_D1b;  
AM285886\_C\_D1b; AM285887\_C\_D1b; AM286124\_C\_D1b; AM285933\_C\_D1b;  
AM286076\_C\_D1b; AM286077\_C\_D1b; AM285932\_C\_D1b; AM397947\_C\_D1b;  
EF652687\_C\_D1b; EF652527\_C\_D1b; EF652686\_C\_D1b; AM262458\_C\_D1b;  
AB154197\_C\_C1b; EF652662\_C\_D1b; GQ870495\_C\_P1a; EF652521\_C\_D1b;  
FN666402\_C\_D1a; GQ870505\_C\_P1a; FJ607067\_C\_D1b; X61591\_C\_P1b;  
EF652728\_C\_D1b; EF652708\_C\_D1b; EF652705\_C\_D1b; EF652719\_C\_D1b;  
EU155364\_C\_C1b; AB079090\_C\_P1a; AF177036\_C\_C2a; AF238481\_C\_C2a;  
L38326\_C\_P2c; AY232745\_C\_C2b; AY232748\_C\_C2b; AM263099\_C\_D3a;  
AM263130\_C\_D3a; AM263074\_C\_D3a; HM042014\_C\_D3a; AM263120\_C\_D3a;  
AM263167\_C\_D3a; GQ356213\_C\_C3a; D28917\_C\_C3a; HM053609\_C\_D4;

FJ462435\_C\_D4b; DQ480522\_C\_C6a

**87 Protein sequences are covered at 92 %:**

AB077740\_C\_D1b; AM262509\_C\_D1b; EU677258\_C\_C1a; HM041976\_C\_D1a;  
HM041973\_C\_D1a; EU362894\_C\_C1a; FN666320\_C\_D1a; GQ848792\_C\_P1a;  
GQ870469\_C\_P1a; EU781766\_C\_C1a; AJ278830\_C\_C1a; EF652605\_C\_D1b;  
DQ228492\_C\_D1b; AB077726\_C\_D1b; AM262468\_C\_D1b; AM262471\_C\_D1b;  
AM285712\_C\_D1b; AM285703\_C\_D1b; AM285734\_C\_D1b; AM285714\_C\_D1b;  
AM285740\_C\_D1b; AM286155\_C\_D1b; AM285984\_C\_D1b; AM285823\_C\_D1b;  
AM285983\_C\_D1b; AM285955\_C\_D1b; AM285782\_C\_D1b; AM286153\_C\_D1b;  
AM285725\_C\_D1b; AM285956\_C\_D1b; AM286152\_C\_D1b; AM286151\_C\_D1b;  
AM285949\_C\_D1b; AM285975\_C\_D1b; AM285741\_C\_D1b; AM285948\_C\_D1b;  
AM285710\_C\_D1b; AM285961\_C\_D1b; AM285965\_C\_D1b; AM286144\_C\_D1b;  
AM286145\_C\_D1b; AM285800\_C\_D1b; FJ607073\_C\_D1b; AM286050\_C\_D1b;  
AM286115\_C\_D1b; HM041998\_C\_D1b; U45476\_C\_C1b; EU781831\_C\_C1b;  
EF407461\_C\_C1b; HM041994\_C\_D1b; EF407470\_C\_C1b; FN666396\_C\_D1a;  
GQ848785\_C\_P1a; GQ848791\_C\_P1a; M84754\_C\_C1b; EF652715\_C\_D1b;  
L38334\_C\_P2a; AB031663\_C\_C2k; EF115979\_C\_P2d; L29631\_C\_P2d; D49746\_C\_P2e;  
AY232731\_C\_C2b; HM042000\_C\_D3a; AM263152\_C\_D3a; AM263070\_C\_D3a;  
AM263067\_C\_D3a; AM263137\_C\_D3a; AM263155\_C\_D3a; AM263124\_C\_D3a;  
AM263126\_C\_D3a; AM263168\_C\_D3a; AM263133\_C\_D3a; AM263079\_C\_D3a;  
AM263084\_C\_D3a; AM263080\_C\_D3a; U94723\_C\_D3a; L29624\_C\_P4e;  
DQ988079\_C\_C4a; EU643835\_C\_D6; HM042027\_C\_D6f; HM042030\_C\_D6f;  
D37844\_C\_P6f; D37843\_C\_P6e; DQ314805\_C\_C6e; D31971\_C\_P6e; EU246932\_C\_C6e;  
DQ155560\_C\_PRF\_6p2i

**63 Protein sequences are covered at 91 %:**

EU256054\_C\_C1b; EF652531\_C\_D1b; EF407414\_C\_C1a; EF560521\_C\_P1a;  
DQ077736\_C\_D1a; GQ870501\_C\_P1a; GQ870471\_C\_P1a; EF652763\_C\_D1b;  
D50483\_C\_C1b; AJ000009\_C\_C1b; L38318\_C\_P1b; EU781829\_C\_C1b;  
EF652630\_C\_D1b; EU370638\_C\_P1a; AY940622\_C\_P1b; EU155306\_C\_C1b;  
FJ607093\_C\_D1b; AM285791\_C\_D1b; AM285794\_C\_D1b; AM285827\_C\_D1b;  
AM285903\_C\_D1b; AM286161\_C\_D1b; U45462\_C\_P1b; AM286080\_C\_D1b;  
AM286042\_C\_D1b; AM286097\_C\_D1b; EU256105\_C\_C1a; EF407464\_C\_C1b;  
EF652665\_C\_D1b; EF652779\_C\_D1b; AB077730\_C\_D1b; EF652679\_C\_D1b;  
EF407460\_C\_C1b; GQ870459\_C\_P1a; FN666403\_C\_D1a; AB077725\_C\_D1b;  
GQ848788\_C\_P1a; GQ848790\_C\_P1a; X61592\_C\_P1b; EF652710\_C\_D1b;  
AY051292\_C\_C1c; U94722\_C\_D1b; AB047644\_C\_C2a; AB047641\_C\_C2a;  
AY232739\_C\_C2b; DQ430817\_C\_C2b; AM263100\_C\_D3a; AM263108\_C\_D3a;  
HM042015\_C\_D3a; AM263065\_C\_D3a; AM263091\_C\_D3a; FJ009583\_C\_D3a;  
AM263176\_C\_D3a; D16618\_C\_P3e; DQ418785\_C\_C4a; U33434\_C\_D5; D88474\_C\_P6e;  
EU246931\_C\_C6e; DQ835766\_C\_D6m; DQ278894\_C\_D6n; D88472\_C\_P6l;  
DQ480514\_C\_C6a; D84265\_C\_C6h

**42 Protein sequences are covered at 90 %:**

EU239716\_C\_C1a; EF560541\_C\_P1a; GQ870483\_C\_P1a; HM000519\_C\_P1a;  
FN666374\_C\_D1a; EU155257\_C\_C1b; EU155264\_C\_C1b; AF165061\_C\_C1b;  
AB492223\_C\_P1b; FJ607092\_C\_D1b; AM285729\_C\_D1b; AM285817\_C\_D1b;  
AM285745\_C\_D1b; AM285861\_C\_D1b; AM285994\_C\_D1b; AM285707\_C\_D1b;  
AM285731\_C\_D1b; AM285970\_C\_D1b; AM285904\_C\_D1b; AM285959\_C\_D1b;  
FJ607066\_C\_D1b; AM286078\_C\_D1b; AB086044\_C\_D1b; FN666405\_C\_D1a;

FN666399\_C\_D1a; HM041992\_C\_D1b; X61594\_C\_P1b; AM397937\_C\_D1b;  
AM285777\_C\_D1b; DQ859968\_C\_D2a; D49755\_C\_P2e; AY232746\_C\_C2b;  
AM263097\_C\_D3a; AM263104\_C\_D3a; AM263163\_C\_D3a; AM263169\_C\_D3a;  
AM263175\_C\_D3a; AM263122\_C\_D3a; AM263083\_C\_D3a; AM263094\_C\_D3a;  
AM263101\_C\_D3a; D88471\_C\_P6l

**30 Protein sequences are covered at 89 %:**

EF652786\_C\_D1b; GQ848653\_C\_P1a; FN666384\_C\_D1a; EF652584\_C\_D1b;  
AB492221\_C\_P1b; AM285706\_C\_D1b; D13406\_C\_P1b; AM285938\_C\_D1b;  
AF359348\_C\_D1a; AM262460\_C\_D1b; EU155302\_C\_C1b; EU781806\_C\_C1a;  
AB077723\_C\_D1b; GQ870480\_C\_P1a; GQ848783\_C\_P1a; GQ848798\_C\_P1a;  
GQ848797\_C\_P1a; EF652601\_C\_D1b; FJ607127\_C\_D1b; AB492224\_C\_P1b;  
AM286001\_C\_D1b; DQ228489\_C\_D1b; AM263156\_C\_D3a; AM263173\_C\_D3a;  
AM263092\_C\_D3a; AM263081\_C\_D3a; EU435145\_C\_D3a; D16620\_C\_P3d;  
D37846\_C\_P6f; EU246934\_C\_C6o

**38 Protein sequences are covered at 88 %:**

AB154195\_C\_C1b; EF652525\_C\_D1b; FJ607086\_C\_D1b; AB077731\_C\_D1b;  
AB077738\_C\_D1b; GQ848648\_C\_P1a; AB077703\_C\_D1b; AM285716\_C\_D1b;  
AM285757\_C\_D1b; AM285952\_C\_D1b; AM285785\_C\_D1b; AM285967\_C\_D1b;  
AM286138\_C\_D1b; AM285717\_C\_D1b; AM285732\_C\_D1b; AM286000\_C\_D1b;  
AM285873\_C\_D1b; AM286052\_C\_D1b; EF407474\_C\_C1b; FN666390\_C\_D1a;  
FN666408\_C\_D1a; EF652767\_C\_D1b; GQ848795\_C\_P1a; GQ848787\_C\_P1a;  
EF407458\_C\_C1b; EF652702\_C\_D1b; GU451219\_C\_C1b; GQ870458\_C\_P1a;  
AF169003\_C\_C2a; L38336\_C\_P2a; AM263166\_C\_D3a; AF046866\_C\_C3a;  
HM042034\_C\_D6f; D38078\_C\_P6f; D88476\_C\_P6a; D37850\_C\_P6i; DQ835770\_C\_C6i;  
D37848\_C\_P6j

**25 Protein sequences are covered at 87 %:**

AM262472\_C\_D1b; AB492219\_C\_P1b; AB492225\_C\_P1b; AB049097\_C\_C1b;  
FJ607087\_C\_D1b; EU482875\_C\_C1b; AM397946\_C\_D1b; AM397935\_C\_D1b;  
GQ848703\_C\_P1a; AM262496\_C\_D1b; GQ848782\_C\_P1a; EF652661\_C\_D1b;  
FJ607120\_C\_D1b; FJ607079\_C\_D1b; AY885238\_C\_P1a; AF356827\_C\_C1b;  
L38322\_C\_P2c; AM263150\_C\_D3a; AM263121\_C\_D3a; AM263064\_C\_D3a;  
AM263103\_C\_D3a; AM263068\_C\_D3a; GU294484\_C\_C3a; EU246938\_C\_D6n;  
EU246937\_C\_D6n

**28 Protein sequences are covered at 86 %:**

FN666385\_C\_D1a; EU781826\_C\_C1b; AM286160\_C\_D1b; AM285715\_C\_D1b;  
AM285874\_C\_D1b; AM262506\_C\_D1b; S62220\_C\_C1b; M74888\_C\_P1b;  
AM397940\_C\_D1b; D50482\_C\_C1b; L38320\_C\_P2c; AY232737\_C\_C2b;  
AM263089\_C\_D3a; GQ180062\_C\_D3a; EU266535\_C\_D3a; FJ009580\_C\_D3a;  
HM042031\_C\_D6f; EU408326\_C\_C6e; EU408329\_C\_C6s; DQ835765\_C\_D6m;  
DQ835767\_C\_D6m; D88470\_C\_P6l; Y12083\_C\_C6a; EU246935\_C\_C6i;  
DQ835762\_C\_C6i; DQ835761\_C\_C6j; FJ435090\_C\_D6v; EU643836\_C\_D6

**31 Protein sequences are covered at 85 %:**

AB492235\_C\_P1b; AM286154\_C\_D1b; AF165049\_C\_C1b; U45463\_C\_P1b;  
AM285929\_C\_D1b; FJ607091\_C\_D1b; EF652787\_C\_D1b; DQ061323\_C\_P1a;  
D63857\_C\_C1b; GQ870499\_C\_P1a; D10687\_C\_P1b; D10688\_C\_P1b; FJ607110\_C\_D1b;  
DQ228488\_C\_D1b; EF652758\_C\_D1b; AF169002\_C\_C2a; L38324\_C\_P2c;  
L38328\_C\_P2c; L38329\_C\_D2c; D49754\_C\_P2f; AB030907\_C\_C2b; AF238486\_C\_C2b;  
EU392173\_C\_C4k; U33436\_C\_D4; DQ516083\_C\_C4d; HM042025\_C\_D6f;

HM042026\_C\_D6f; HM042037\_C\_D6f; DQ835764\_C\_C6f; EU408327\_C\_C6o;  
D84263\_C\_C6d

**12 Protein sequences are covered at 84 %:**

GQ848705\_C\_P1a; AM285968\_C\_D1b; EU155221\_C\_C1b; EF652515\_C\_D1b;  
EU529682\_C\_C1b; DQ155561\_C\_D2i; AF216792\_C\_P3h; FJ462438\_C\_C4k;  
D88478\_C\_P6e; EU408330\_C\_D6u; EU158186\_C\_D6v; U52811\_C\_D7

**15 Protein sequences are covered at 83 %:**

EF407411\_C\_C1a; AM285739\_C\_D1b; GQ848796\_C\_P1a; AY746460\_C\_C2a;  
D49757\_C\_P2f; FJ009584\_C\_D3a; D16612\_C\_P3c; DQ859943\_C\_D3b; EF115980\_C\_P3g;  
EU246940\_C\_D6; EF632070\_C\_C6t; D63943\_C\_P6m; DQ480524\_C\_C6a;  
D63822\_C\_C6g; DQ314806\_C\_C6g

**13 Protein sequences are covered at 82 %:**

AM286137\_C\_D1b; AB077739\_C\_D1b; GQ848784\_C\_P1a; EF652701\_C\_D1b;  
AM286088\_C\_D1b; AB047643\_C\_C2a; D49756\_C\_P2e; GU570704\_C\_P3a;  
AM408911\_C\_D5; DQ278891\_C\_D6k; DQ480519\_C\_C6a; D37849\_C\_P6i;  
D49758\_C\_P6g

**10 Protein sequences are covered at 81 %:**

EF652693\_C\_D1b; D50484\_C\_C1b; AY434137\_C\_P3i; D49752\_C\_P3k;  
EU392171\_C\_C4k; AF064490\_C\_C5a; D50466\_C\_P5a; L29577\_C\_P5a;  
HM042036\_C\_D6f; D88475\_C\_P6a

**10 Protein sequences are covered at 80 %:**

AM285923\_C\_D1b; AM262507\_C\_D1b; L38327\_C\_D2c; D50409\_C\_C2c;  
HM042021\_C\_D3b; D37839\_C\_P3b; L38332\_C\_P4f; D88473\_C\_P6a; L38339\_C\_P6a;  
EU798760\_C\_D6v

**6 Protein sequences are covered at 79 %:**

FJ607076\_C\_D1b; AM262511\_C\_D1b; DQ228491\_C\_D1b; D49750\_C\_P3k;  
AF216793\_C\_D3h; EF632071\_C\_C6t

**6 Protein sequences are covered at 77 %:**

FN666401\_C\_D1a; AB047642\_C\_C2a; L38330\_C\_D2c; FJ851546\_C\_D3a;  
GQ180061\_C\_D3a; DQ278892\_C\_D6

**6 Protein sequences are covered at 76 %:**

GQ848781\_C\_P1a; EF407472\_C\_C1b; AB077722\_C\_D1b; D49753\_C\_P3k;  
EU246939\_C\_C6t; EU643834\_C\_D6

**4 Protein sequences are covered at 75 %:**

AY434153\_C\_P3i; FJ407092\_C\_D3i; U33437\_C\_P3h; AY231583\_C\_P6b

**2 Protein sequences are covered at 74 %:**

AB047639\_C\_C2a; AY434152\_C\_P7a

**3 Protein sequences are covered at 73 %:**

DQ228490\_C\_D1b; AF238484\_C\_C2a; FJ009581\_C\_D3a

**1 Protein sequence is covered at 72 %:**

D49747\_C\_P3k

**5 Protein sequences are covered at 71 %:**

AB047640\_C\_C2a; L38335\_C\_P2a; HM042024\_C\_D3b; D63821\_C\_C3k; D49751\_C\_P6g

**1 Protein sequence is covered at 70 %:**

HM042028\_C\_D6f

**2 Protein sequences are covered at 69 %:**

AY236365\_C\_D2; HM042022\_C\_D3b

**1 Protein sequence is covered at 68 %:**



AY434140\_C\_P3i

**2 Protein sequences are covered at 67 %:**

HM042023\_C\_D3b; D37840\_C\_P3b

**2 Protein sequences are covered at 66 %:**

DQ278893\_C\_D6k; EU246933\_C\_C6l

**1 Protein sequence is covered at 64 %:**

D11443\_C\_P3b

**1 Protein sequence is covered at 55 %:**

GQ180064\_C\_D3a

**1 Protein sequence is covered at 54 %:**

GQ180063\_C\_D3a

**1 Protein sequence is covered at 52 %:**

FJ009585\_C\_D3a

**2 Protein sequences are covered at 50 %:**

AY231587\_C\_P3b; D49374\_C\_C3b

**1 Protein sequence is covered at 48 %:**

FJ009586\_C\_D3a

**1 Protein sequence is covered at 43 %:**

Y13184\_C\_C5a