Wuhan-coronavirus homologue map

Kou Amano

Background and Objective

Background: At the beginning of 2020, global risk of infection of coronavirus is spreded. The pandemic started in 2019 and governments announced a state of emergency. In Japan, the government adopted PCR as a diagnosis method of the infection. But the selection of prmers infruence the accuracy greatly. Objective: Therefor, I provide a "map" of homological region of coronavirus to other viruses and annimals to help the primer design.

Data

Vertebrates:

- Bat (NW_017738920.1 .. NW_017802358.1; 63439frgs)
 Dog (NC_006583.3 .. NC_006621.3; 39chrs)
- Beluga (NW_022097992.1 .. NW_022103895.1; 5904frgs)
- Camel (NC_044511.1 .. NC_044547.1; 37chrs)
- Cat (NC_018723.3 .. NC_018741.3; 19chrs)

Viruses:

• 7554 genomes of viruses or phages

- Ferret (NW_004569142.1 .. NW_004576923.1; 7782frgs)
 Pig (NC_010443.5 .. NC_010462.3; 20chrs)
- Human (NC_000001.4 .. NC_000024.3; 24chrs)
- Mouse (NC_000067.6 .. NC_000087.7; 21chrs)
- Wuhan-corona virus genome (MN908947.3)
- Rabbit (NC_013669.1 .. NC_013690.1; 22chrs)
- Rock Pigeon (NW_004973171.1 .. NW_004988092.1; 14922frgs)
- Turkey (NC_015011.2 .. NC_015042.2; 32chrs)

Method

blast

DB: makeblastdb -in <<input file>> -out <<DB name>> -dbtype nucl -parse_seqids self-blast

window-fourrier selection of frequent homologues

