

What's COVID 19

- Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).
- The disease was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in the ongoing 2019–20 coronavirus pandemic.
- Common symptoms include fever, cough, and shortness of breath. Other symptoms may include fatigue, muscle pain, diarrhea, sore throat, loss of smell, and abdominal pain.
- The time from exposure to onset of symptoms is typically around five days but may range from two to fourteen days.

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Coronavirus Genome Information

1

ORGANISM

Severe acute respiratory syndrome coronavirus 2
Viruses; Riboviria; Nidovirales; Coronaviridae; Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

2

Genome length

1..29903 bp
Organism: "Severe acute respiratory syndrome coronavirus 2"
mol_type: "genomic RNA"
Isolate: "Wuhan-Hu-1"
Host: "Homo sapiens"
db_xref: "taxon:2697049"
Country: "China"
collection_date: "Dec-2019"

3

LOCUS

29903 bp linear ss-RNA VRL
Date: 30-MAR-2020
DEFINITION: Severe acute respiratory syndrome coronavirus 2 isolate Wuhan-Hu-1, complete genome.
ACCESSION: NC_045512
VERSION: NC_045512.2

REFERENCES

- ProBaranov PV, Henderson CM, Anderson CB, Gesteland RF, Atkins JF, Howard MT. Programmed ribosomal frameshifting in decoding the SARS-CoV genome. *Virology*. 2005 Feb 20;332(2):498-510.
- Robertson MP, Igel H, Baertsch R, Haussler D, Ares Jr M, Scott WG. The structure of a rigorously conserved RNA element within the SARS virus genome. *PLoS Biol*. 2004 Dec 28;3(1):e5.
- Williams GD, Chang RY, Brian DA. A phylogenetically conserved hairpin-type 3' untranslated region pseudoknot functions in coronavirus RNA replication. *Journal of virology*. 1999 Oct 1;73(10):8349-55.
- Wu F, Zhao S, Yu B, Chen YM, Wang W, Hu Y. A novel Coronavirus associated with a respiratory disease in Wuhan of Hubei province, China. Submitted (05-JAN-2020) Shanghai Public Health Clinical Center & School of Public Health, Fudan University, Shanghai, China. 2020.

MAIN REFERENCE bases 1 to 29903 bp
CONSRM NCBI Genome Project
TITLE Direct Submission
JOURNAL Submitted (17-JAN-2020) National Center for Biotechnology Information, NIH, Bethesda, MD 20894, USA

4

Genes in this sequence

- 4-1 **266..21555 bp**
Gene: "ORF1ab"
locus_tag: "GU280_gp01"
db_xref: "GeneID:43740568"
- 4-2 **21563..25384 bp**
Gene: "S"
locus_tag: "GU280_gp02"
gene_synonym: "spike glycoprotein"
db_xref: "GeneID:43740568"
- 4-3 **25393..26220 bp**
Gene: "ORF3a"
locus_tag: "GU280_gp03"
db_xref: "GeneID:43740569"
- 4-4 **26245..26472 bp**
Gene: "E"
locus_tag: "GU280_gp04"
db_xref: "GeneID:43740570"
- 4-5 **26523..27191 bp**
Gene: "M"
locus_tag: "GU280_gp05"
db_xref: "GeneID:43740571"
- 4-6 **27202..27387 bp**
Gene: "ORF6"
locus_tag: "GU280_gp06"
db_xref: "GeneID:43740572"
- 4-7 **27394..27759 bp**
Gene: "ORF7a"
locus_tag: "GU280_gp07"
db_xref: "GeneID:43740573"
- 4-8 **27756..27887 bp**
Gene: "ORF7b"
locus_tag: "GU280_gp08"
db_xref: "GeneID:43740574"
- 4-9 **27894..28259 bp**
Gene: "ORF8"
locus_tag: "GU280_gp09"
db_xref: "GeneID:43740577"
- 4-10 **28274..29533 bp**
Gene: "N"
locus_tag: "GU280_gp10"
db_xref: "GeneID:43740575"
- 4-11 **29558..29674 bp**
Gene: "ORF10"
locus_tag: "GU280_gp11"
db_xref: "GeneID:43740576"