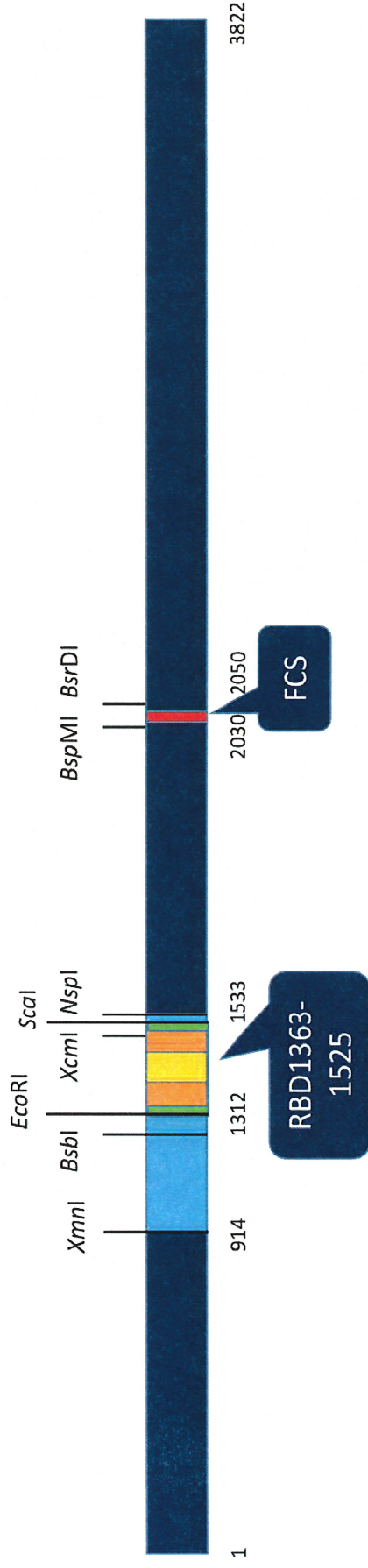


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SARS CoV-2 SPIKE GENE

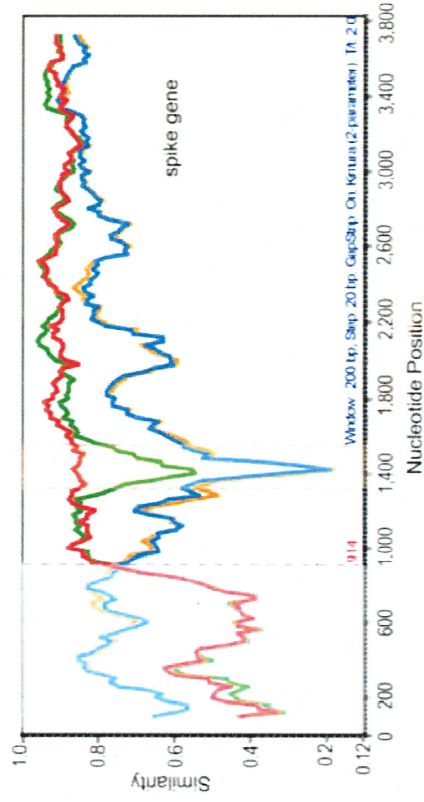


Highest homology to RaTG13Pangolin CoV

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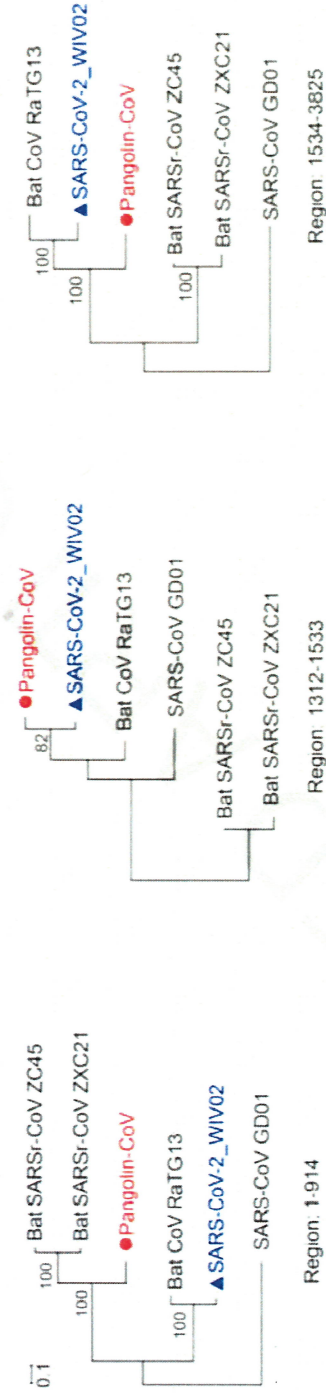
SARS-COV-2 SPIKE GENE SEGMENTS

QUERY: PANGOLIN-COV



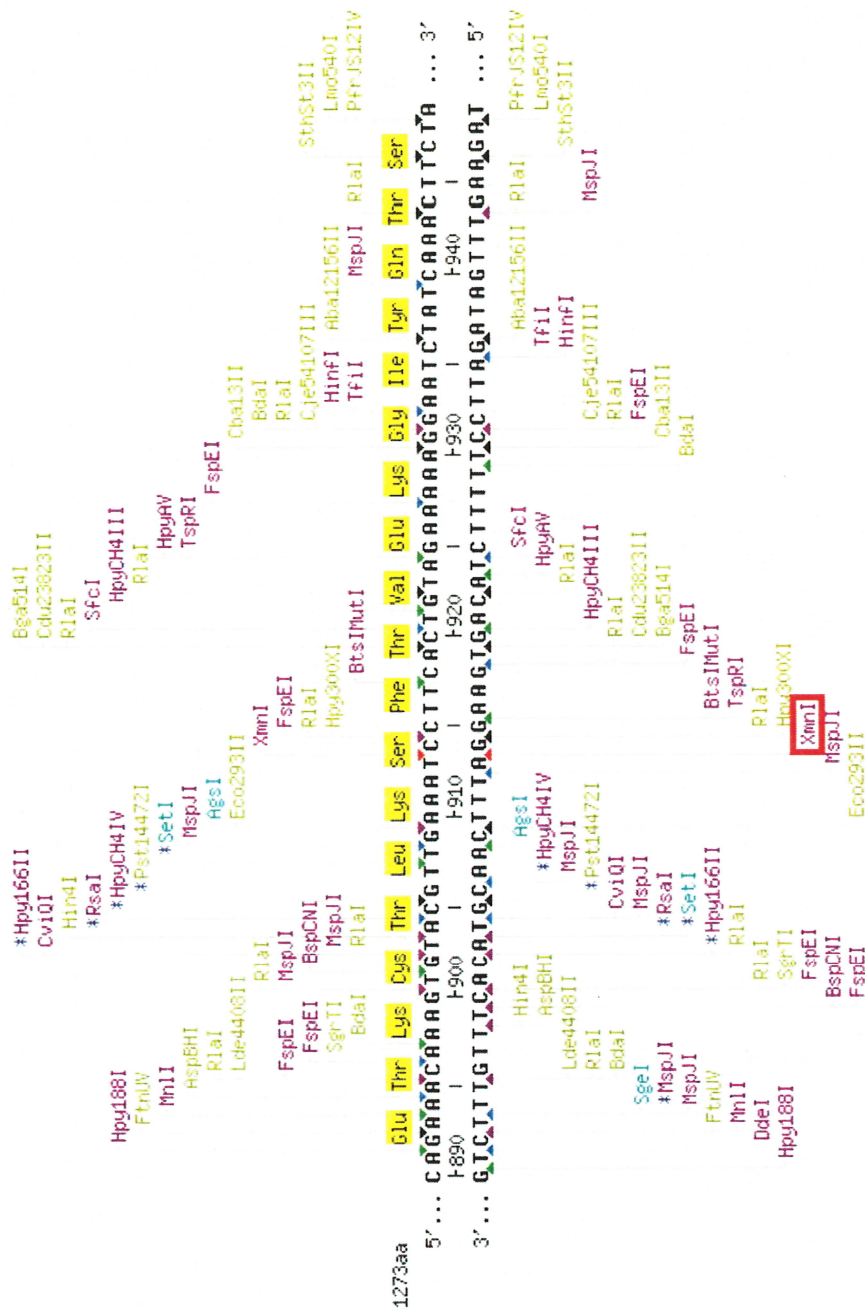
— SARS-CoV-2_WIV02
— Bat CoV RaTG13
— Bat SARSr-CoV_ZC45
— Bat SARSr-CoV_ZXC21

b



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Nucleotide 914 Region



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~~SECRET//NOFORN~~

Nucleotide 1312 Region

[illegible]

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SARS-CoV 1980 CATGTCGACACTTCTTATGAGTGGGACATTCCCTATTGGAGCTGGCATTGTGCTAGTTAC
H V D T S Y E C D I P I G A G I C A S YSARS-CoV-2
CATGTCAAACTCATATGAGTGTGACATACCCATTGGTGCAGGTATATGCGCTAGTTAT 2022
H V N N S Y E C D I P I G A G I C A S YBCoV RaTG13
CATGTCAATAACTCGTATGAGTGTGACATACCTATTGGTGCAGGAATATGCGCCAGTTAT 2022
H V N N S Y E C D I P I G A G I C A S Y SARS-CoV CATAAGTTTCTTTATT-----
ACGTAGTACTAGCCAAAATCTATTGTGGCT 2028 H T V S L L R S T S Q K S I
V ASARS-CoV-2 2082 Q T Q T N S P R A R S V A S Q S I I ABCoV RaTG13
CAGACTCAAACTAATTC-----ACGTAGTGTGGCCAGTCAATCTATTATTGCC 2070 Q T Q
T N S R S V A S Q S I I AFuIn Cleavage SiteNovel BspMI Restriction SiteNovel NmeAIII
Restriction SiteNovel BsrDI Restriction Site

The following 3 pages are withheld in full citing (b)(1) and (b)(3) 50 USC 3024(i), and are not provided.

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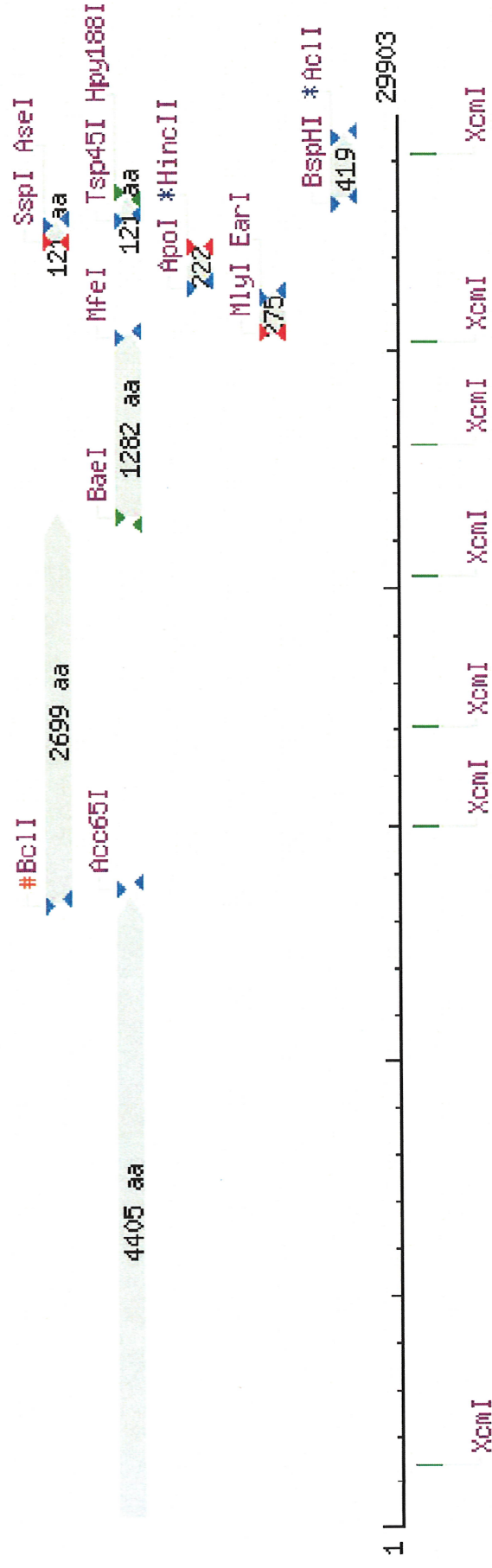
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Back-Up Slides

~~SECRET//NOFORN~~

~~SECRET//NOFORN~~

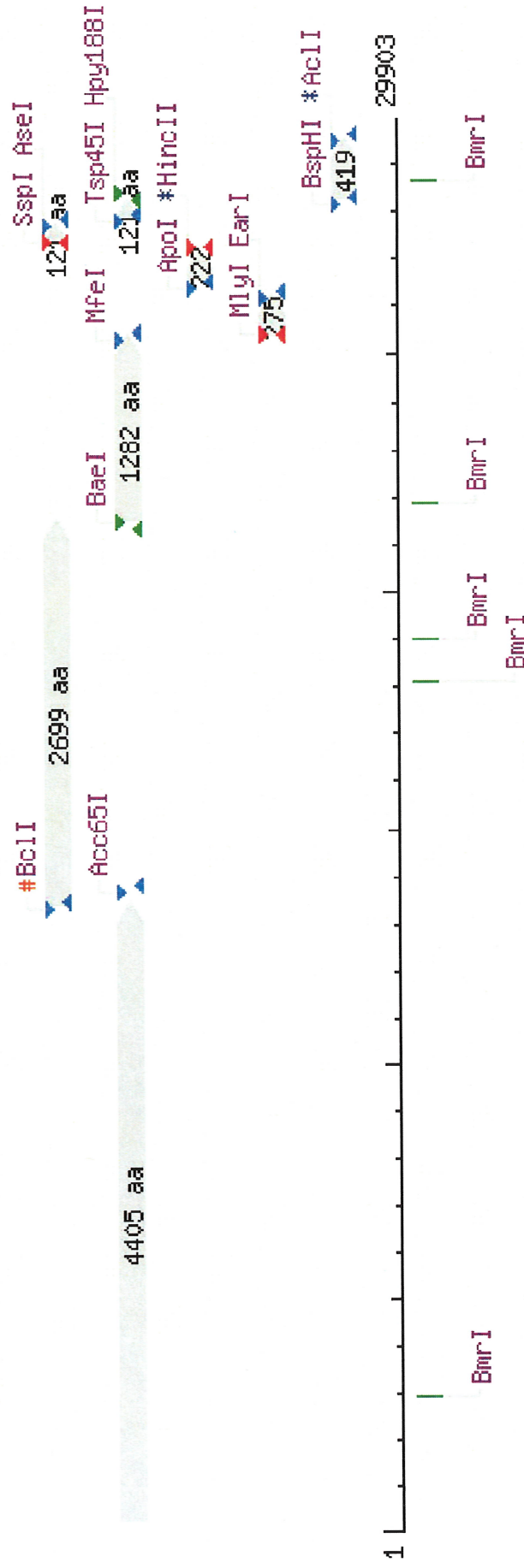
RE-based Fragment Build Option – XcmI (1 nt overhang)



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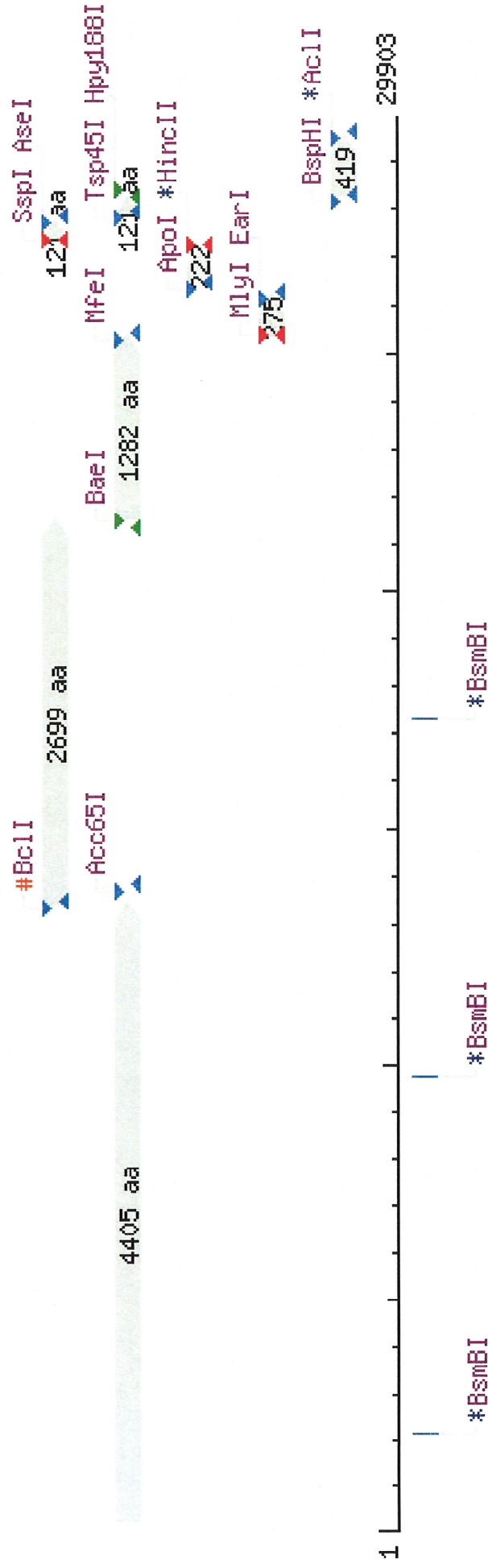
RE-based Fragment Build Option – *BmrI* (1 nt overhang)



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RE-based Fragment Build Option – *BsmBI* (4 nt overhang)



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