

Out of scope

Figure 3.2.S.1.2-3. RNA nucleotide Sequence of the BNT162b2 drug substance:

Nucleotide sequence 5'→3':

GAGAAYAAAC	YAGYAYCY	CYGGYCCCCA	CAGACYCAGA	GAGAACCCGC	50
CACCAYGYC	GYGYCCYGG	YGCGCYGCC	YCYGGYGYCC	AGCCAGYGYG	100
YGAACCYGAC	CACCAGAACA	CAGCYGCCYC	CAGCCYACAC	CAACAGCYYY	150
ACCAGAGGCG	YGYACYACCC	CGACAAGGYG	YICAGAYCCA	GCGYGCYGCA	200
CYCYACCCAG	GACCYGYCC	YGCCYYYCY	CAGCAACGYG	ACCYGGYYCC	250
ACGCCAYCCA	CGYGYCCGGC	ACCAAYGGCA	CCAAGAGAY	CGACAACCCC	300
GYGCGCCCY	YCAACGACGG	GGYGYACYYY	GCCAGCACCG	AGAAGYCCAA	350
CAYCAYCAGA	GGCYGGAYCY	YCGGCACCAC	ACYGGACAGC	AAGACCCAGA	400
GCCYGCYGAY	CGYGAACAAC	GCCACCAACG	YGGYCAACAA	AGYGYGCGAG	450
YYCCAGYYCY	GCAACGACCC	CYYCCYGGGC	GYCYACYACC	ACAAGAACAA	500
CAAGAGCYGG	AYGGAAAGCG	AGYYCCGGGY	GYACAGCAGC	GCCAACAACY	550
GCACCYYCGA	GYACGYGYCC	CAGCCYYCC	YGAYGGACCY	GGAAGGCAAG	600
CAGGGCAACY	YCAAGAACCY	GCGCGAGYYC	GYGYYYAAGA	ACAYCGACGG	650
CYACYCAAG	AYCYACAGCA	AGCACACCCC	YAYCAACCYC	GYGCGGGAYC	700
YGCCYAGGG	CYYCYCYG	CYGGAAACCCC	YGGYGGAYCY	GCCCAYCGGC	750
AYCAACAYCA	CCCGGYYYCA	GACACYG	GCCCYGCACA	GAAGCYACCY	800
GACACCYGGC	GAYAGCAGCA	GCGGAYGGAC	AGCYGGYGCC	GCCGYYACY	850
AYGYGGGCYA	CCYGCAGCCY	AGAACCYYCC	YGCYGAAGYA	CAACGAGAAC	900
GGCACCAYCA	CCGACGCCGY	GGAYYGYG	CYGGAYCCYC	YGAGCGAGAC	950
AAAGYGCACC	CYGAAGYCCY	YCACCGYGG	AAAGGGCAYC	YACCAGACCA	1000
GCAACYCCG	GGYGCAGCCC	ACCGAAYCCA	YCGYCGGGY	CCCCAAYAYC	1050
ACCAAYCYGY	GCCCCYYCGG	CGAGGYGYC	AAYGCCACCA	GAYYCGCCYC	1100
YGYGYACGCC	YGGAAACCGGA	AGCGGAYCAG	CAAYYGCYGY	GCCGACYACY	1150

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BNT162b2

3.2.S.1.2 Structure

CCGYGCGYGA	CAACYCCGCC	AGCYYCAGCA	CCYYCAAGYG	CYACGGCGYG	1200
YCCCCYACCA	AGCYGAACGA	CCYGYGCIYC	ACAAACGYGY	ACGCCGACAG	1250
CYYCGYGAYC	CGGGGAGAYG	AAGYGC GGCA	GAYYGCCCCY	GGACAGACAG	1300
GCAAGAYCGC	CGACYACAAC	YACAAGCYGC	CCGACGACYY	CACCGGCIYG	1350
GYGAYYGCCY	GGAACAGCAA	CAACCYGGAC	YCCAAAGYCG	GCGGCAACYA	1400
CAAYYACCYG	YACCGGCIYG	YCCGGAAGYC	CAAYCIYGAAG	CCCIYCGAGC	1450
GGGACAYCIY	CACCGAGAYC	YAYCAGGCCG	GCAGCACCCC	YGYAACGGC	1500
GYGGAAGGCY	YCAACYGCIY	CIYCCCACYG	CAGYCCIYACG	GCIIYICAGCC	1550
CACAAAYGGC	GYGGGCIYAY	AGCCCCIYAC	AGYGGYGGYG	CIYGAGCIYICG	1600
AACYGCIYCA	YCCCCIYGCC	ACAGYGIYCG	GCCCCIYAGAA	AAGCACCAAY	1650
CIYCGIYGAAG	ACAAAYGCIY	GAACIYCAAC	YCAACGGCC	YGACCGGCAC	1700
CGGCGIYCIY	ACAGAGAGCA	ACAAGAAGYI	CCIYGCCIYIY	CAGCAGYIYG	1750
GCCGGGAYAY	CGCCGAYACC	ACAGACGCCG	YIYAGAGAYCC	CCAGACACYG	1800
GAAAYCCIYG	ACIYCACCCC	YIYGCAGCIY	GGCGGAGYGI	CIYGIYAGCAC	1850
CCCIYGGCAC	AACACCAGCA	AIYCAGGIYGC	AGYGIYCIYIY	CAGGACGIYGA	1900
ACIYIYACCG	AGYGCCCGY	GCCIYIYCACG	CCGAIYCAGCI	GACACCIYACA	1950
YGGCGGGYGI	ACIYCCACCG	CAGCAAYGIY	YIYIYCAGACCA	GAGCCGGCIY	2000
YCIYAGIYCG	GCCGAGCACG	YGAACAAYAG	CIYACGAGYGC	GACAIYCCCCA	2050
YCGGCGCIYG	AAYCIYCGCC	AGCIYACCAGA	CACAGACAAA	CAGCCCCIYCG	2100
AGAGCCAGAA	GCGYGGCCAG	CCAGAGCAYC	AIYIYGCCIYACA	CAAYGIYCIYCI	2150
GGGCGCCGAG	AACAGCGIYGG	CCIYACIYCCAA	CAACIYCIYIY	GCYAIYCCCCA	2200
CCAACIYIYCAC	CAYCAGCGY	ACCACAGAGA	YCCIYGCCIYGI	GIYCCAIYGACC	2250
AAGACCAGCG	YGGACIYGCAC	CAYGIYACAYC	YIYCGGGCAGIY	CCACCGAGY	2300
CIYCCAACCIY	CIYGIYGCAGY	ACGGCAGCIYI	CIYGCACCCAG	CIYGAAYAGAG	2350
CCCIYGACAGG	GAYIYCGCCY	GAACAGGACA	AGAACACCCA	AGAGGIYGIYIY	2400
GCCCAAGYGA	AGCAGAIYCIY	CAAGACCCCIY	CCIYAIYCAAGG	ACIYIYCGGCGG	2450
CIYIYCAAYIYIY	AGCCAGAIYIY	YIYCCCCGAYCC	YAGCAAGCCC	AGCAAGCGGA	2500
GCIIYIYCIYCIY	GGACCIYCIY	YIYCAACAAAG	YIYACAIYGGC	CGACGCCGGC	2550
YIYCIYCAAGC	AGYAIYGGCG	YIYGIYIYGGGC	GACAIYIYGGCC	CCAGGGAIYCIY	2600
GAIYIYIYCGCC	CAGAAGYIYIY	ACGGACIYIY	AGIYIYIYGGCIY	CCIYCIYGIYGA	2650
CCGAGIYAGAY	GAYIYCGCCAG	YACACAIYCIY	CCCCIYGIYGGC	CGGCACAIYIY	2700
ACAAGCGGCIY	GGACAIYIYIYGG	AGCAGGGCGCC	GCYCIYGCAGA	YCCCCIYIYIYGC	2750
YAIYGCAGAY	GCCIYACCGGIY	YCAACGGCIY	CGGAGYIYGACC	CAGAAYGIYGC	2800
YGIYACGAGAA	CCAGAAGCIY	AIYCGCCAAACC	AGYIYCAACAG	CGCCAIYCGGC	2850
AAGAIYCCAGG	ACAGCCIYIY	CAGCACAGCA	AGCGCCCIYGG	GAAAGCIYGCA	2900
GGACGIYGGYIY	AACCAGAIYIY	CCAGGCACIY	GAACACCCCIY	GIYCAAGCAGC	2950
YGIYCCIYCCAA	CIYIYCGGCGCC	AIYCAGCIYCIY	YIYCIYGAACGA	YAIYCCIYIYGAGC	3000
AGAIYIYGGACC	CIYCCIYIYAGGC	CGAGGIYGCAG	AIYCGACAGAC	YIYAGIYCACAGG	3050
CAGAIYIYGCAG	AGCCIYIYCCAGA	CAYACGIYIY	CCAGCAGCIY	AIYCAGAGCCG	3100
CCGAGAIYIYIY	AGCCIYIYIYGGC	AAYCIYGGCCG	CCACCAAGAIY	GIYCIYIYGAGYIY	3150
GIYGIYIYGGCC	AGAGCAAGAG	AGYGGACIYIYIY	YIYCGGCAAGG	GCYIYACCACCIY	3200
GAIYIYIYGCIYIY	CCIYIYCAGIYIY	CCCCIYCACGG	CGIYGGYGIYIYIY	CIYGCACGIYGA	3250
CAYAIYIYIYGGC	CGCIYCAAGAG	AAGAAYIYIYCA	CCACCGCIYIY	AGCCAIYCIYGC	3300
CACGACGGCA	AAGCCCCIYIY	YCCIYAGAGAA	GGCGYGIYIYIYCG	YIYIYCCAACCGG	3350
CACCCAIYIYGG	YIYCGIYIY	AGCGGAACIYIY	CIYACGAGCCC	CAGAIYIYCAIYCA	3400
CCACCGACAA	CACCIYIYIYCGY	YIYIYGGCAACIY	GCGACGIYIY	GAIYIYCGGCAIYIY	3450
GIYGAACAAYA	CCGIYIYIYCGA	CCCCIYIYGCAG	CCCCGAGCIYIYGG	ACAGCIYIYCA	3500
AGAGGAACIY	GACAAGIYIY	YIYAAAGAACCA	CACAAGCCCC	GACGIYIYGGACC	3550
YGGGCGAYAY	CAGCGGAAYC	AAYGCCAGCG	YCGIYGAACAIY	CCAGAAAGAG	3600
AIYIYCGACCGGC	YGAACGAGGIY	GGCCAAGAIY	CIYGAACGAGA	GCCIYIYGAIYCGA	3650
CCIYIYGAAGAA	CIYGGGGAAGY	ACGAGCAGIY	CAYCAAGIYGG	CCCIYGGYACA	3700
YCIYGGCIYGGG	CIYIYIYIYCGCC	GGACIYIY	CCAIYIYIYGAIY	GGYIYCAAIYIY	3750
AIYIYIYIYGGYIY	GCIYIYIYIY	CIYIYIYIYIY	YIYIYIYIYIY	GCYIYIYIYIYIY	3800
CIYIYIYIYIYIY	YIYIYIYIYIY	YIYIYIYIYIY	YIYIYIYIYIY	CCCIYIYIYIYIY	3850
AGGGCGIYIY	AIYIYIYIYIY	AIYIYIYIYIY	YIYIYIYIYIY	AIYIYIYIYIYIY	3900
CGCAAYIYIY	GCYIYIYIYIY	YIYIYIYIYIY	GGYIYIYIYIY	GCYIYIYIYIYIY	3950
ACCIYIYIYIYIY	CCAGGIYIYIY	YIYIYIYIYIY	ACCIYIYIYIYIY	CIYIYIYIYIYIY	4000

BNT162b2

3.2.S.1.2 Structure

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CYGCYAGYYC CAGACACCCYC CCAAGCACGC AGCAAYGCAG CYCAAAACGC 4050
YYAGCCYAGC CACACCCCCA CGGGAAACAG CAGYGAYYAA CCYYYAGCAA 4100
YAAACGAAAG YYAACYAAG CYAYACYAAC CCCAGGGYYG GYCAAYYYCG 4150
YGCCAGCCAC ACCCYGGAGC YAGCAAAAAA AAAAAAAAAA AAAAAAAAAA 4200
AAAAGCAYAY GACYAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA 4250
AAAAAAAAA AAAAAAAAAA AAAAAAAAAA AAAA 4284
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Sequence length: 4284, which includes G to denote the presence of the 5'-cap analog

G: 1062 C: 1315 A: 1106 Y: 801

A = Adenine; C = Cytosine; G = Guanine; Y = N1-methylpseudouridine

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