

STATEMENT ON A NONPROPRIETARY NAME ADOPTED BY THE USAN COUNCIL

USAN (KL-144) VIBOSAMERAN
PRONUNCIATION vye boe" sa mer' an
THERAPEUTIC CLAIM Antineoplastic

CHEMICAL NAME

RNA (recombinant [1,2-[m7Gm-p-[P(R)]-sp-p-G]]-capped human monophenol monooxygenase-specifying poly(A)-tailed messenger RBL002.4), inner salt (Source: CAS)

STRUCTURAL FORMULA

Nucleotide sequence 5'→3':

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GGGCGAACUA  GUAUUCUUCU  GGUCCCCACA  GACUCAGAGA  GAACCCGCCA  50
CCAUGCUCUC  GGCUGUGCUC  UAUUGCUUGC  UGUGGUCCUU  CCAGACUUCU  100
GCCGGACACU  UUCCAGAGC  AUGUGUGUCA  UCCAAAAACC  UCAUGGAGAA  150
AGAAUGCUGU  CCUCCUUGGA  GUGGUGAUAG  AUCCCAUGU  GGACAGCUCU  200
CAGGCAGAGG  AUCUUGCCAG  AACAUUCUGC  UGAGCAAUGC  ACCUCUUGGC  250
CCACAGUUUC  CCUUUACCGG  AGUAGAUGAC  AGAGAAAGUU  GGCCUCCGU  300
GUUCUACAAC  AGAACAUGCC  AAUGCAGCGG  CAAUUUUUUG  GGAAUUUAACU  350
GCGGAAAUUG  CAAAUUUGGA  UUUUGGGGCC  CAAACUGUAC  AGAAAGAGA  400
CUGCUCGUUA  GAAGAAACAU  CUUUGAUCUG  AGCGCACCCG  AAAAAGACAA  450
AUUCUUCGCU  UAUCUGACUC  UCGCCAAACA  CACAAUAAGC  AGUGAUUAUG  500
UCAUUCCCA  UGGCACUUUA  GGACAGAUGA  AAAAUGGCUC  AACUCCCAUG  550
UUAACACGACA  UCAACAUUA  CGAUCUGUUU  GUGUGGAUGC  AUUACUACGU  600
GAGUAUGGAU  GCUCUGCUGG  GUGGCUCCGA  AAUAUGGAGG  GAUAUAGAUU  650
UUGCACACGA  AGCUCUGGCC  UUCCUCCAU  GGCAUAGACU  GUCCUGCUG  700
AGAUGGGAAC  AAGAAAUCCA  GAAACUUACA  GGCGAUGAAA  ACUUCACUUA  750
CCCUUAUUGG  GAUUGGAGAG  AUGCUGAGAA  AUGCGAUUUC  UGUACCGAUG  800
AAUACAUGG  UGGUCAACAC  CCAACCAACC  CCAAUCUCCU  GAGCCUGGCC  850
UCUUUCUUCA  GUUCUUGGCA  GAUUGUCUGU  UCAAGAUUGG  AAGAAUACAA  900
UUCCAUACAG  UCCCUGUGUA  ACGGAACACC  AGAAGGACCU  CUGAGAAGAA  950
ACCCUGGCAA  UCAUGACAAA  AGCAGGACAC  CUAGACUUC  CUCCUCUGCC  1000
GACGUUGAAU  UUUGCCUCUC  UCUGACCCAG  UACGAAAGCG  GUAGCAUGGA  1050
CAAAGCCGCC  AAUUUCAGCU  UUAGAAAUAC  CUUGGAAGGA  UUUGCCUCAC  1100
CUCUGACAGG  AAUUGCUGAU  GCUAGCCAGU  CAUCCAUGCA  CAACGCUUUG  1150
CACAUUAUA  UGAUUGGAAC  CAUGAGUCAG  GUUCAGGGAU  CUGCCAAUGA  1200
UCCUAUUUUC  UCCUGGCACC  AUGCAUUCGU  GGACUCUAUC  UUUGAGCAGU  1250
GGCUUAGAAG  ACACAGACCA  UUGCAGGAAG  UCUAUCCAGA  GGCCAACGCA  1300
CCAAUCGGCC  AUAAUAGAGA  AAGCUACAUG  GUACCCUUA  UUCCUCUGUA  1350
CAGAAUUGGA  GAUUUCUUA  UCAGCUCCAA  AGACCUGGGC  UACGAUUACU  1400
CAUAUCUGCA  AGACAGUGAU  CCCGAUAGCU  UCCAAGACUA  CAUUAAGUCU  1450
UAUCUCGAAC  AGGCGAGCAG  AAUCUGGUCC  UGGGGAGGAU  CCGGUGGUGG  1500
CGGCAGCGGC  GGCAAGAAGC  AGUACAUCAA  GGCCAACAGC  AAGUUCAUCG  1550
GCAUCACCGA  GCUGAAGAAG  CUGGGAGGGG  GCAAACGGGG  AGGCGGCAA  1600
AAGAUGACCA  ACAGCGUGGA  CGACGCCUG  AUCAACAGCA  CCAAGAUUA  1650
CAGCUACUUC  CCCAGCGUGA  UCAGCAAAGU  GAACCAGGGC  GCUCAGGGCA  1700
AGAAACUGGG  CUCUAGCGGA  GGGGGAGGCU  CUCCUGGCGG  GGGAUUCUAGC  1750
AUCGUGGGAA  UUGUGGCAGG  ACUGGCAGUG  CUGGCCGUGG  UGUGAUUCGG  1800
AGCCGUGGUG  GCUACCGUGA  UGUGCAGACG  GAAGUCCAGC  GGAGGCAAGG  1850
GCGGCAGCUA  CAGCCAGGCC  GCCAGCUCUG  AUAGCGCCCA  GGGCAGCGAC  1900
GUGUCACUGA  CAGCCUAGUA  ACUCGAGCUG  GUACUGCAUG  CACGCAUUGC  1950
UAGCUGCCCC  UUUCCCUGUC  UGGGUACCCC  GAGUCUCCCC  CGACCUCGGG  2000
UCCCAGGUUA  GCUCCCACCU  CCACCUGCCC  CACUCACCAC  CUCUGCUAGU  2050
UCCAGACACC  UCCCAAGCAC  GCAGCAAUGC  AGCUCAAAC  GCUUAGCCUA  2100
GCCACACCCC  CACGGGAAAC  AGCAGUGAUU  AACUUUAGC  AAUAAACGAA  2150
AGUUUAACUA  AGCUAUACUA  ACCCCAGGGU  UGGUCAUUU  CGUGCCAGCC  2200
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ACACCGAGAC CUGGUCCAGA GUCGCUAGCC GCGUCGCUAA AAAAAAAAAA 2250
 AAAAAAAAAA AAAAAAAAAAGC AUAUGACUAA AAAAAAAAAA AAAAAAAAAA 2300
 AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAA 2348

Feature	Description	Position
Capping Structure	phosphorothioate stabilized cap analogue	1-1
hAg-Kozak	human ct-globin - Kozak region	2-52
GS-rich linkers	Sequences that code for short linker peptides generally consisting of the amino acids glycine and serine	1484-1513, 1709-1750
Tyrosinase (1-477)	Codon-optimized sequences encoding the protein tyrosinase. Note that for tyrosinase only the sequence coding for the first 477 amino acids is used; the endogenous trans-membrane domain of tyrosinase starting with amino acid 478 has been deleted.	53-1483
P2P16	Sequence coding for tetanus toxoid-derived helper epitopes	1514-1708
MITD	transmembrane and cytoplasmic domains of MHC class I molecule	1751-1921
FI	sequence element derived of the amino terminal enhancer of splitRNA (F) and from the mitochondrially encoded I2S RNA (I)	1922-2238
Poly(A)	A poly(A)-tail measuring 110 nucleotides in length.	2239-2348

MOLECULAR FORMULA C₂₂₃₈₆H₂₇₆₉₄N₉₀₃₂O₁₆₂₅₆P₂₃₅₀S

MOLECULAR WEIGHT 756.2 kDa

TRADEMARKS None yet

SPONSOR BioNTech SE

CODE DESIGNATIONS RBL002.4

CAS REGISTRY NUMBER 2348560-90-5

UNII F1C08KOS00

WHO NUMBER 11478

SCS