

STATEMENT ON A NONPROPRIETARY NAME ADOPTED BY THE USAN COUNCIL

USAN (EF-19) DUVORTUXIZUMAB

PRONUNCIATION doo" vor tux iz' ue mab

THERAPEUTIC CLAIM Treatment of B-cell malignancies

CHEMICAL NAMES

1. Immunoglobulin, anti-(human CD19 antigen) (human-*Mus musculus* monoclonal light chain variable region fragment) fusion protein with peptide (synthetic linker) fusion protein with immunoglobulin, anti-(human CD3 antigen) (human-*Mus musculus* monoclonal heavy chain variable region fragment) fusion protein with peptide (synthetic linker) fusion protein with peptide (synthetic E-coil domain fragment) fusion protein with peptide (synthetic linker) fusion protein with immunoglobulin G1 (human Fc region knob mutation fragment), disulfide with immunoglobulin, anti-(human CD3 antigen) (human-*Mus musculus* monoclonal light chain variable region fragment) fusion protein with peptide (synthetic linker) fusion protein with immunoglobulin, anti-(human CD19 antigen) (human-*Mus musculus* monoclonal heavy chain variable region fragment) fusion protein with peptide (synthetic linker) fusion protein with peptide (synthetic K-coil domain fragment) and immunoglobulin G1 (human Fc region hole mutation fragment)
2. Immunoglobulin G1-kappa-lambda, bispecific anti-(human T-cell surface glycoprotein epsilon chain (T-cell surface antigen T3/Leu-4 epsilon chain, CD3e antigen)) and anti-(human B-lymphocyte antigen CD19 (B-lymphocyte surface antigen B4, differentiation antigen CD19, T-cell surface antigen Leu-12, CD19 antigen)), humanized and chimeric monoclonal antibody; fusion protein scFv-h-CH2-CH3 chain (1-502) of humanized V-KAPPA (*Homo sapiens* IGKV3D-11*02 (79%) –(IGHD)-IGHJ2*02) [5.3.9] (1-106) with trisglycyl-L-seryltetrakisglycyl (107-114) chimeric VH (*Mus musculus* IGHV10-1*02 (89%) –(IGHD)-IGHJ3*01 (93%)) [8.10.16] (115-239) with L-alanyl-L-seryl-L-threonyl-L-lysylglycyl (240-244) E-coil (245-272) and trisglycyl (273-275) human IGHG1*03 {CH2 L⁴>A(289), L⁵>A(290), CH3 T²⁶>W(421)}-Fc region-(6-232)-peptide (276-502), (249-248')-disulfide with fusion protein scFv chain (1'-271') of chimeric V-LAMBDA (*Mus musculus* IGLV1*01 (81%) –(IGHD)-IGLJ1*01) [9.3.9] (1'-109') with tetrakisglycyl-L-seryltetrakisglycyl (110'-118') humanized VH (*Homo sapiens* IGHV2-5*09 (91%) –(IGHD)-IGHJ4*01 (93%)) [10.7.12] (119'-238') with L-alanyl-L-seryl-L-threonyl-L-lysylglycyl (239'-243') K-coil (244-271') (281-6":284-9")-bisdisulfide with γ 1 heavy chain Fc region (1"-226") (*Homo sapiens* IGHG1*03 {CH2 L⁴>A(14"), L⁵>A(15"), CH3 T²⁶>S(146"), L²⁸>A(148"), Y⁶⁷>V(187"), H⁹⁵>R(215"), K¹⁰⁷>-(del)}-Fc region-(6-231)-peptide

STRUCTURAL FORMULA

scFv-h-CH2-CH3 chain1 sequence (VK anti-CD19, VL anti-CD3)

ENVLTQSPAT	LSVTPGEEKAT	ITCRASQSVS	YMHWYQQKPG	QAPRLLIYDA	50
SNRASGVPSR	FSGSGSGTDH	TLTISSLEAE	DAATYYCFQG	SVYPFTFGQG	100
TKLEIKGGGS	GGGGEVQLVE	SGGGLVQPGG	SLRLSCAASG	FTFSTYAMNW	150
VRQAPGKGLE	WVGRIIRSKYN	NYATYYADSV	KGRFTISRDD	SKNSLYLQMN	200
SLKTEDTAVY	YCVRHGNFNG	SYVSWFAYWG	QGTILVTVSSA	STKGEVAACE	250
KEVAALKEKEV	AALKEKEVAAL	EKGGGDKTHT	CPPCPAPEAA	GGPSVFLFPP	300
KPKDTLMISR	TPEVTCVVVD	VSHEDPEVKF	NWYVDGVEVH	NAKTKPREEQ	350
YNSTYRVVSV	LTVLHQDWLN	GKEYKCKVSN	KALPAPIEKT	ISKAKGQPRE	400
PQVYTLPPSR	EEMTKNQVSL	WCLVKGFYPS	DIAVEWESNG	QPENNYKTFP	450
PVLDSGGSFF	LYSKLTVDKS	RWQQGNVFSC	SVMHEALHNS	YTQKSLSLSP	500
GK					502

scFv chain2 sequence (VL anti-CD3, VH anti-CD19)

QAVVTQEPSL	TVSPGGTVTL	TCRSSTGAVT	TSNYANWVQQ	KPGQAPRGLI	50'
GGTNKRAPWT	PARFSGSLLG	GKAALTITGA	QAEDEADYYC	ALWYSNLWVF	100'
GGGTKLTVLG	GGGSGGGQV	TLRESGPALV	KPTQTLTLTC	TFSGFSLSTS	150'
GMGVGWIRQP	PGKALEWLAH	IWWDDDKRYN	PALKSRLTIS	KDTSKNQVFL	200'
TMTNMDPVD	ATYYCARMEL	WSYYFDYWGQ	GTTVTVSSAS	TKGKVAACKE	250'
KVAALKEKVA	ALKEKVAALK	E			271'

h-CH2-CH3 chain3 sequence

DKTHTCPPCP	APEAAGGPSV	FLFPPKPKDT	LMISRTPEVT	CVVVDVSHED	50"
PEVKFNWYVD	GVEVHNAKTK	PREEQYNSTY	RVVSVLTVLH	QDWLNGKEYK	100"
CKVSNKALPA	PIEKTIISKAK	GQPREPQVYT	LPPSREEMTK	NQVSLSCAVK	150"
GFYPSDIAVE	WESNGQPENN	YKTTTPVLDS	DGSFFLVSKL	TVDKSRWQQG	200"
NVFCSCVMHE	ALHNRVTQKS	LSLSPG			226"

Disulfide bridges

6"-281	9"-284	22'-90'	23-87	41"-101"	136-212
140'-215'	147"-205"	248'-249	316-376	422-48	

Glycosylation sites (N)

Asn-352 Asn-77"

MOLECULAR FORMULA $C_{4850}H_{7485}N_{1305}O_{1487}S_{35}$ (nonglycosylated)

MOLECULAR WEIGHT 111.9 kDa (glycosylated)

TRADEMARK None as yet

SPONSOR Janssen Global Services

CODE DESIGNATIONS JNJ-64052781, MGD011, RES192M1.2, hBU12(2.4)-hXR32-MP3 M1.2

CAS REGISTRY NUMBER 1831098-91-9

UNII J545GSE96Y

WHO NUMBER 10506

gbk