

# STATEMENT ON A NONPROPRIETARY NAME ADOPTED BY THE USAN COUNCIL

USAN (HI-185) FARLETUZUMAB ECTERIBULIN

PRONUNCIATION far" le tooz' ue mab ek" ter i bue' lin

THERAPEUTIC CLAIM Treatment of cancer

## CHEMICAL NAMES

1. Immunoglobulin G1, anti-(human folate receptor  $\alpha$ ) (human-mouse monoclonal MORAb-003 heavy chain), disulfide with human-mouse monoclonal MORAb-003  $\kappa$ -chain, dimer, reduced, thioether with *N*-[3-[2-[2-(3-mercapto-2,5-dioxo-1-pyrrolidinyl)ethoxy]ethoxy]-1-oxopropyl]-L-valyl-*N*<sup>6</sup>-(aminocarbonyl)-*N*-[4-[[[[[(2*S*)-3-[(2*R*,3*R*,3*aS*,7*R*,8*aS*,9*S*,10*aR*,11*S*,12*R*,13*aR*,13*bS*,15*S*,18*S*,21*S*,24*S*,26*R*,28*R*,29*aS*)-octacosahydro-3-methoxy-26-methyl-20,27-bis(methylene)-5-oxo-11,15:18,21:24,28-triepoxy-7,9-ethano-12,15-methano-9*H*,15*H*-furo[3,2-*l*]furo[2',3':5,6]pyrano[4,3-*b*][1,4]dioxacyclopentacosin-2-yl]-2-hydroxypropyl]amino]carbonyl]oxy]methyl]phenyl-L-ornithinamide (Source: CAS)
2. immunoglobulin G1-kappa, anti-[*Homo sapiens* FOLR1 (folate receptor 1, folate receptor alpha, FR-alpha, adult folate-binding protein, FBP, ovarian tumor-associated antigen MOv18)], humanized monoclonal antibody, conjugated to *eribulin* via a cleavable linker; gamma1 heavy chain humanized (1-449) [VH (*Homo sapiens* IGHV3-30\*03 (83.5%) -(IGHD) -IGHJ6\*01 (90.9%) T123>P (114), CDR-IMGT [8.8.12] (26-33.51-58.97-108)) (1-119) -*Homo sapiens* IGHG1\*01 (100%), G1m17,1 (CH1 K120 (216) (120-217), hinge 1-15 (218-232), CH2 (233-342), CH3 D12 (358), L14 (360) (343-447), CHS (448-449)) (120-449)], (222-217')-disulfide with kappa light chain humanized (1'-217') [V-KAPPA (*Homo sapiens* IGKV1-13\*02 (81.2%) -IGKJ2\*01 (91.7%) L124>V (107), CDR-IMGT [7.3.11] (27-33.51-53.90-100)) (1'-110') -*Homo sapiens* IGKC\*01 (100%), Km3 A45.1 (156), V101 (194) (111'-217')]; dimer (228-228":231-231")-bisdisulfide, produced in a Chinese hamster ovary (CHO)-K1SV cell line, glycoform alfa; substituted at an average of four S atoms of cysteine residues (reduced inter-chain disulfide bonds) with (3*RS*)-1-[(6*S*,9*S*)-1-amino-6-[(4-[[[(2*S*)-2-hydroxy-3-(1<sup>2</sup>*S*,1<sup>3</sup>*S*,1<sup>4</sup>*R*,1<sup>5</sup>*R*,3<sup>2</sup>*R*,3<sup>4</sup>*R*,3<sup>6</sup>*S*,6<sup>2</sup>*S*,6<sup>5</sup>*S*,9<sup>2</sup>*S*,9<sup>3*a*</sup>*R*,9<sup>4*a*</sup>*R*,9<sup>5</sup>*S*,9<sup>5*a*</sup>*S*,9<sup>7</sup>*R*,9<sup>9*a*</sup>*S*,9<sup>10*a*</sup>*R*,9<sup>10*b*</sup>*S*)-1<sup>4</sup>-methoxy-3<sup>4</sup>-methyl-3<sup>3</sup>,6<sup>3</sup>-bis(methylidene)-11-oxo-9-decahydro-9<sup>3</sup>*H*-9(2,7)-(2,5-epoxyfuro[2',3':4,5]furo[3,2-*b*]pyrano[2,3-*e*]pyrana)-3(2,6)-oxana-1(2,3),6(2,5)-bis(oxolana)cyclododecaphan-1<sup>5</sup>-yl]propyl}carbamoyleoxy]methyl}phenyl)carbamoyle]-1,8,11-trioxo-9-(propan-2-yl)-14,17-dioxa-2,7,10-triazanonadecan-19-yl]-2,5-dioxopyrrolidin-3-yl (*ecteribulin*) groups

## STRUCTURAL FORMULA

### Heavy chain X & X''

EVQLVESGGG	VVQPGRSLRL	SCSASGFTFS	GYGLSWVRQA	PGKGLEWVAM	50
ISSGGSYTYY	ADSVKGRFAI	SRDNAKNTLF	LQMDSLRLPED	TGVYFCARHG	100
DDPAWFAYWG	QGTPVTVSSA	STKGPSVFPL	APSSKSTSGG	TAALGCLVKD	150
YFPEPVTVSW	NSGALTSGVH	TFFPAVLQSSG	LYSLSSVVTV	PSSSLGTQTY	200
ICNVNHNKPSN	TKVDKKVEPK	SCDKTHTCPP	CPAPELLGGP	SVFLFPPKPK	250
DTLMISRTPE	VTCVVDVSH	EDPEVKFNWY	VDGVEVHNAK	TKPREEQYNS	300
TYRVVSVLTV	LHQDWLNGKE	YKCKVSNKAL	PAPIEKTISK	AKGQPREPQV	350
YTLPPSRDEL	TKNQVSLTCL	VKGFYPSDIA	VEWESNGQPE	NNYKTTTPVL	400
DSDGSFFLYS	KLTVDKSRWQ	QGNVFCSSVM	HEALHNHYTQ	KSLSLSPGK	449

### Light chain X' & X'''

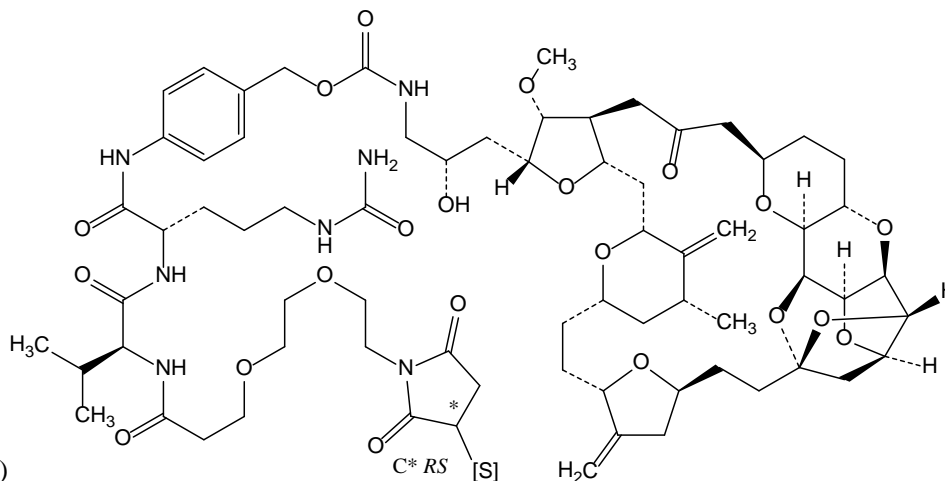
DIQLTQSPSS	LSASVGDRVT	ITCSVSSSIS	SNNLHWYQOK	PGKAPKPWIY	50'
GTSNLAGSVP	SRFSGSGSGT	DYTFITISLQ	PEDIATYYCQ	QWSSYPMYT	100'
FGQGTKVEIK	RTVAAPSVFI	FPPSDEQLKS	GTASVVCLLN	NFYPREAKVQ	150'
WKVDNALQSG	NSQESVTEQD	SKDSTYSLSS	TLTLSKADYE	KHKVYACEVT	200'
HQGLSSPVTK	SFNRGEC				217'

### Disulfide bridge locations

22-96	22''-96''	23'-89'	23'''-89'''	137'-197'	137'''-197'''	146-202	146''-202''
217'-222	217'''-222'''	228-228''	231-231''	263-323	263'''-323'''	369-427	369''-427''

### Modified Cysteine

~4 C among  
217', 217''', 222, 222'',  
228, 228'', 231, 231''  
are S-substituted  
by ecteribulin radical



### Glycosylation sites (N)

Asn-299 Asn-299''

### MOLECULAR FORMULA

C<sub>6466</sub>H<sub>9928</sub>N<sub>1716</sub>O<sub>2020</sub>S<sub>42</sub> (C<sub>70</sub>H<sub>100</sub>N<sub>7</sub>O<sub>21</sub>)<sub>~4</sub>

### MOLECULAR WEIGHT

~149 kDa

### TRADEMARK

None as yet

### SPONSOR

Eisai Inc.

### CODE DESIGNATIONS

MORAb-202

### CAS REGISTRY NUMBER

2407465-18-1

### UNII

UVG3B5TZN3

### WHO NUMBER

11877

gbk