

May 26, 2016

## STATEMENT ON A NONPROPRIETARY NAME ADOPTED BY THE USAN COUNCIL

USAN (CD-106)

ISTIRATUMAB

PRONUNCIATION

is" tir at' ue mab

THERAPEUTIC CLAIM

Treatment of advanced solid tumors

## CHEMICAL NAMES

1. Immunoglobulin G1, anti-(human insulin-like growth factor I receptor/neuregulin receptor HER3) (human monoclonal MM-005 heavy chain), disulfide with human monoclonal MM-005 light chain, dimer
2. Recombined immunoglobulin G1-kappa/lambda anti-(human insulin-like growth factor 1 receptor (EC=2.7.10.1, CD221) / human receptor tyrosine-protein kinase erb-3 (EC=2.7.10.1, proto-oncogene-like protein c-ErbB-3, tyrosine kinase-type cell surface receptor HER3)), human monoclonal antibody:  $\gamma$ 1 heavy chain (1-450) [humanVH anti-CD221 (*Homo sapiens* IGHV3-23\*01 (91%) -(IGHD)-IGHJ4\*01 (93%) [8.8.15] (1-122)) (*Homo sapiens* IGHG1\*03 {CH1 R<sup>97</sup>>K (219) CH2 del-S<sup>107</sup>>- CH3 del-K<sup>107</sup>>-} (123-450))] fusion protein with tris[(tetraglycyl)seryl]-humanVH anti-TPK $\gamma$  erbB-3 (*Homo sapiens* IGHV3-9\*01 (93%) -(IGHD)-IGHJ4\*01) [8.8.15] (451-590) fusion protein with tetrakis[(tetraglycyl)seryl]-human V-LAMBDA anti-TPK $\gamma$  erbB-3 (IGLV3-19\*01 (95%) -(IGHD)-IGHJ3\*02 (92%)) [6.3.11] (591-718) with C-terminal glycine (719), (225-214')-disulfide with light chain (1'-214') [human V-KAPPA anti-CD221 (*Homo sapiens* IGKV1-12\*01 (91%) -IGKJ4\*01) [6.3.9] (1'-107') -*Homo sapiens* IGKC\*01 (108'-214')]; dimer (231-231":234-234")-bisdisulfide

## STRUCTURAL FORMULA

Heavy chain / Chaîne lourde / Cadena pesada

EVQLLQSGGG	LVQPGGSLRL	SCAASGFMFS	RYPMHWRQA	PGKLEWVGS	50
ISGSGGATPY	ADSVKGRFTI	SRDNSKNTLY	LQMNSLRAED	TAVYYCAKDF	100
YQILTGNAFD	YWGQGT'VTV	SSASTKGPSV	FPLAPSSKST	SGGTAALGCL	150
VRDYFPEPVT	VSWNSGALTS	GVHTFPAVLQ	SSGLYSLSSV	VTVPSSSLGT	200
QTYICNVNHNK	PSNTKVDKVV	EPKSCDKTHT	CPPCPAPELL	GGPSVFLFPP	250
KPKDTLMI'SR	TPEVTCVVVD	VSHEDPEVKF	NWYVDGVEVH	NAKTKPREEQ	300
YNSTYRVVSV	LTVLHQDWLN	GKEYKCKVSN	KALPAPIEKT	IKAKGQPREP	350
QVYTLPPSRE	EMTKNQVSLT	CLVKGFYPSD	IAVEWESNGQ	PENNYK'TTPP	400
VLDSDGSFFL	YSKLTVDKSR	WQQGNV'FSCS	VMHEALHNHY	TQKSLSLSPG	450
GGGSGGGGS	GGGGSQVQLV	QSGGGLVQPG	GSLR'LSAAS	GFT'FDDYAMH	500
WVRQAPGKGL	EWVAGISWDS	GSTGYADSVK	GRFTISR'DNA	KNSLYLQ'MNS	550
LRAEDTALYY	CARDLGAYQW	VEGFDYWGQG	TLVTVSSAST	GGGSGGGGS	600
GGGSGGGGS	SYELTQDPAV	SVALGQTVRI	TCQGD'LSRSY	YASWYQKPG	650
QAPV'LVIIYK	NNRPSGIPDR	FSGSTSGNSA	SLTITGAQAE	DEADYYCNSR	700
DSPGNQWVFG	GGTKVTVLG				719

## Light chain / Chaîne légère / Cadena ligera

DIQMTQSPSS	LSASLGDRVT	ITCRASQGIS	SYLAWYQQKP	GKAPKLLIYA	50'
KSTLQSGVPS	RFSGSGSGTD	F <sup>1</sup> LT <sup>1</sup> ISS <sup>1</sup> LQP	EDSATYYCQQ	YWTFPLTFGG	100'
GTKVEIKRTV	AAPSVFIFPP	SDEQLKSGTA	SVVCLLN <sup>1</sup> NFY	PREAKVQWKV	150'
DNALQSGNSQ	ESVTEQDSKD	STYLSSTLT	LSKADYEKHK	VYACEVTHQG	200'
LSSPVTKSFN	RGEC				214'

## Disulfide bridges location / Position des ponts disulfure / Posiciones de los puentes disulfuro

22-96	22"-96"	23'-88'	23'''-88'''	134'-194'	134'''-194'''	149-205
149"-205"	214'-225'	214'''-225'''	231-231"	234-234"	266-326	266"-326"
371-429	371"-429"	487-561	487"-561"	632-697	632"-697"	

## Glycosylation sites (N) / Sites de glycosylation (N) / Posiciones de glicosilación (N)

Asn-302 Asn-302"

MOLECULAR FORMULA  $C_{8802}H_{13532}N_{2392}O_{2796}S_{58}$  (peptide)

MOLECULAR WEIGHT 199.5 kDa (peptide)

TRADEMARK None as yet

SPONSOR Merrimack Pharmaceuticals

CODE DESIGNATIONS MM-141

CAS REGISTRY NUMBER 1509928-04-4

UNII XLR461MD3M

WHO NUMBER 10431

gbk