

December 25, 2013

STATEMENT ON A NONPROPRIETARY NAME ADOPTED BY THE USAN COUNCIL

USAN (BC-30)

BIMAGRUMAB

PRONUNCIATION

bye mag' rue mab

THERAPEUTIC CLAIM

Prevention and treatment of muscle wasting

CHEMICAL NAMES

1. Immunoglobulin G1, anti-(human activin receptor type II) (human monoclonal clone NVS130413 γ 1-chain), disulfide with human monoclonal clone NVS130413 λ 2-chain, dimer
2. Immunoglobulin G1-lambda2, anti-[human activin receptor type-2A (ACTR-IIA, EC=2.7.11.30) and human activin receptor type-2B (ACTR-IIB, EC=2.7.11.30)], human monoclonal antibody; γ 1 heavy chain (1-444) [human VH Q¹>Glp (IGHV1-2*02 (92%) –(IGHD)-IGHJ4*01 [8.8.8] (1-115) –IGHG1*03 {CH1 (116-213), hinge (214-228), CH2 L⁴>A (232), L⁵>A (233) (229-338), CH3 des-K¹⁰⁷>- (339-444)} (116-444)] (218-216')-disulfide with λ 2 light chain (1'-217') [human V-LAMBDA Q¹>Glp (IGLV2-23*01 (92%) –IGLJ2*01 [9.3.11] (1'-111') –IGLC2*02 (112'-217')]; dimer (224-221":227-227")-bisdisulfide

STRUCTURAL FORMULA

Heavy chain

<u>Q</u> VQLVQSGAE	VKKPGASVKV	SCKASGYTFT	SSYINWVRQA	PGQGLEWMGT	50
INPVSGSTSY	AQKFQGRVTM	TRDTSISTAY	MELSRLRSD	TAVYYCARGG	100
WFDYWGQGT	LVTVSSASTKG	PSVFLAPSS	KSTSGGTAAL	GCLVKDYFPE	150
PVTVSWNSGA	LTSGVHTFPA	VLQSSGLYSL	SSVVTVPSSS	LGTQTYICNV	200
NHKPSNTKVD	KRVEPKSCDK	THTCPPCPAP	EAAGGPSVFL	FPPKPKDTLM	250
ISRTPEVTCV	VVDVSHEDPE	VKFNWYVDGV	EVHNAKTKPR	EEQYNSTYRV	300
VSVLTVLHQD	WLNKEYKCK	VSNKALPAPI	EKTIISKAKGQ	PREPQVYTLP	350
PSREEMTKNQ	VSLTCLVKGF	YPSDIAVEWE	SNGQPENNYK	TTPPVLDSDG	400
SFFLYSKLTV	DKSRWQQGNV	FSCSVMEAL	HNHYTQKSLS	LSPG	444

Light chain

<u>Q</u> SALTQPASV	SGSPGQSITI	SCTGTSSDVG	SYNYVNWYQQ	HPGKAPKLM	50'
YGVSKRPSGV	SNRFGSKSG	NTASLTISGL	QAEDADYYC	GTFAGGSYYG	100'
VFGGGTKLTV	LGQPKAAPSV	TLFPPSSEEL	QANKATLVCL	ISDFYPGAVT	150'
VAWKADSSPV	KAGVETTPS	KQSNKYAAS	SYLSLTPEQW	KSHRSYSCQV	200'
THEGSTVEKT	VAPTECS				217'

Disulfide bridges

22-96	22"-96"	22'-90'	22"-90"	139'-198"	139"-198"	142-198	142"-198"
216'-218	216"-218"	224-224"	227-227"	259-319	259"-319"	365-423	365"-423"

Modified residues



Glycosylation sites (N)

Asn-295 Asn-295'

MOLECULAR FORMULA	$C_{6306}H_{9732}N_{1684}O_{1990}S_{46}$
MOLECULAR WEIGHT	142.4 kDa
TRADEMARK	None as yet
SPONSOR	Novartis Pharma AG
CODE DESIGNATIONS	BYM338
<u>CAS</u> REGISTRY NUMBER	1356922-05-8
WHO NUMBER	9711

gbk