

April 29, 2015

STATEMENT ON A NONPROPRIETARY NAME ADOPTED BY THE USAN COUNCIL

USAN (CD-102) EMACTUZUMAB

PRONUNCIATION em" ak tooz' ue mab

THERAPEUTIC CLAIM Treatment of cancer

CHEMICAL NAMES

1. Immunoglobulin G1, anti-(human macrophage colony-stimulating factor receptor) (human-*Mus musculus* monoclonal heavy chain), disulfide with human-*Mus musculus* monoclonal light chain, dimer
2. Immunoglobulin G1-kappa, anti-(human macrophage colony-stimulating factor 1 receptor (CSF-1 receptor, proto-oncogene cFms, antigen CD115, EC=2.7.10.1); humanized mouse monoclonal antibody: γ 1 heavy chain (1-446) [humanized VH (human IGHV1-18*01 (93%) –(IGHD)-IGHJ6*01) [8.7.10] (1-116) –human IGHG1*01 (117-446)], (219-213')-disulfide with kappa light chain (1'-213') [humanized V-KAPPA (human IGKV1-39*01 (86%) –IGKJ2*01) [6.3.8] (1'-106') -human IGKC*01 (107'-213')], dimer (225-225":228-228")-bisdisulfide

STRUCTURAL FORMULA

Heavy chain

QQLVQSGAE	VKKPGASVKV	SCKASGYTFT	SYDISWVRQA	PGQGLEWMGV	50
IWTDGGTNYA	QKLQGRVTMT	TDTSTSTAYM	ELRSLRSDDT	AVYYCARDQR	100
LYFDVWGQGT	TVTSSASTK	GPSVFPLAPS	SKSTSGGTAA	LGCLVKDYFP	150
EPVTVSWNSG	ALTSGVHTFP	AVLQSSGLYS	LSSVVTVPSS	SLGTQTYICN	200
VNHKPSNTKV	DKKVEPKSCD	KTHTCPPCPA	PELLGGPSVF	LFPPKPKDTL	250
MISRTPEVTC	VVDVSHEDP	EVKFNWYVDG	VEVHNAKTKP	REEQYNSTYR	300
VVSVLTVLHQ	DWLNGKEYKC	KVSNKALPAP	IEKTISKAKG	QPREPQVYTL	350
PPSRDELTKN	QVSLTCLVKG	FYPSDIAVEW	ESNGQPENNY	KTTPPVLDSD	400
GSFFLYSKLT	VDKSRWQQGN	VFSCSVMHEA	LHNHYTQKSL	SLSPGK	446

Light chain

DIQMTQSPSS	LSASVGDRV	ITCRASEDVA	TYVSWYQQK	GKAPKLLIYA	50'
ASNRYTGVPS	RFGSGSGTD	FRTLTISSLQ	EDFATYYCQQ	SFSYPTFGQG	100'
TKLEIKRTVA	APSVFIFPPS	DEQLKSGTAS	VVCLLNNFY	REAKVQWKVD	150'
NALQSGNSQE	SVTEQDSKDS	TYSLSTLTLL	SKADYEKHKV	YACEVTHQGL	200'
SSPVTKSFNR	GEC				213'

Disulfide bridges

22-95	22"-95"	23'-88'	23"-88"	133'-193'	133"-193"	143-199	143"-199"
213'-219	213"-219"	225-225"	228-228"	260-320	260"-320"	366-424	366"-424"

Glycosylation sites (N)

Asn-296 Asn-296"

MOLECULAR FORMULA

 $C_{6398}H_{9908}N_{1704}O_{2020}S_{44}$ (peptide)

MOLECULAR WEIGHT

144.4 kDa (peptide)

TRADEMARK	None as yet
SPONSOR	Genentech/Roche
CODE DESIGNATIONS	RG7155, RO5509554
<u>CAS</u> REGISTRY NUMBER	1448221-67-7
UNII	6FY6E1X8R
WHO NUMBER	9951

gbk