

STATEMENT ON A NONPROPRIETARY NAME ADOPTED BY THE USAN COUNCIL

USAN (HI-44) IODINE I 131 APAMISTAMAB

PRONUNCIATION eye' oh dine a'' pa mis' ta mab

THERAPEUTIC CLAIM Antineoplastic

CHEMICAL NAMES

1. Immunoglobulin G1, anti-(human CD45 antigen) (*Mus musculus* monoclonal BC8  $\gamma$ 1-chain), disulfide with *Mus musculus* monoclonal BC8  $\kappa$ -chain, dimer, labeled with iodine-131
2. Immunoglobulin G1-kappa, anti-(*Homo sapiens* Receptor-type tyrosine-protein phosphatase C (Leukocyte common antigen, EC=3.1.3.48, CD45 antigen); *Mus musculus* monoclonal antibody; conjugated on ~6 tyrosyl aminoacids to iodine ( $^{131}\text{I}$ );  $\gamma$ 1 heavy chain (1-445) [*Mus musculus* VH (IGHV4-1\*02 (96%) – (IGHD)-IGHJ4\*01) [8.8.14] (1-121) - *Mus musculus* IGHG1\*02 {CH1[Q $^{78}$ >E(199)], CH2[K $^{57}$ >Q(288),I $^{63}$ >F(294)], CH3[N $^{31}$ >D(369)]} (122-445)] (223-218')-disulfide with  $\kappa$  light chain (1'-218') [*Mus musculus* V-KAPPA (IGKV3-12\*01 (98%) –IGKJ4\*01)[10.3.9] (1'-111') -*Mus musculus* IGKC\*01 (111'-218')], dimer (225-225':228-228':230-230')-trisulfide; conjugated on ~6-tyrosyl aminoacids (2 per each H chain and 1 per each L chain) to iodine ( $^{131}\text{I}$ )

EVKLLESGGG	LVQPGGSLKL	SCAASGFDFS	RYWMSVVRQA	PGKLEWIGE	50
INPTSSTINF	TPSLKDKVFI	SRDNAKNTLY	LQMSKVRSED	TALYYCARGN	100
<u>Y</u> RYGDAMDY	WGQGTSVTVS	SAKTTPPSVY	PLAPGSAAQT	NSMVTLGCLV	150
KGYFPEPVTV	TWNSGSLSSG	VHTFPAVLQS	DLYTLSSSVT	VPSSTWPSSET	200
VTCNVAHPAS	STKVDKKIVP	RDCGCKPCIC	TVPEVSSVFI	FPPKPKDVLV	250
ITLTPKVTCV	VVDISKDDPE	VQFSWFVDDV	EVHTAQTQPR	EEQFNSTFRS	300
VSELPIMHQD	WLNGKEFKCR	VNSAAFPAPI	EKTISKTKGR	PKAPQVYTIP	350
PPKEQMAKDK	VSLTCMITDF	FPEDITVEWQ	WNGQPAENYK	NTQFIMDTDG	400
S <u>Y</u> FV <u>Y</u> SKLNV	QKSNWEAGNT	FTCSVLHEGL	HNHHTKLSLS	HSPGK	455

Light chain

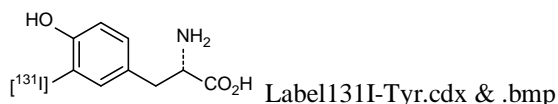
DIALTQSPAS	LAVSLGQRAT	ISCRASKSVS	TSGYS <u>Y</u> LHW <u>Y</u>	QQKPGQPPKL	50'
LIYLASNLES	GVPARFSGSG	SGTDFTLNIH	PVEEEDAAT <u>Y</u>	YCQHSRELFF	100'
TFPGSTKLEI	KRADAAPTVS	IFPPSSEQLT	SGGASVVCFL	NNFYPKDINV	150'
KWKIDGSRQ	NGVLSNWTDQ	DSKDSYSTMS	STLTLTKDEY	ERHNSYTCEA	200'
THKTSTSPIV	KSFNRNEC				218'

Disulfide bridges location

22-96	22"-96"	23'-92'	23"-92"	138'-198'	138"-198"
148-203	148"-203"	218'-223'	218"-223"	225-225"	228-228"
230-230"	259-319	259"-319"	365-423	365"-423"	

Modified residues (a random of six substitutions, mostly one by vicinity positions)

Y  
Light chains : 36',40' / 36",40"  
Heavy chains : 101,102 / 101",102"  
402,405 / 402",405"  
Radiolabeled 3- $^{131}\text{I}$ iodotyrosine



Glycosylation sites (N)

Asn-295 Asn-295'

MOLECULAR FORMULA

C<sub>6492</sub>H<sub>9958</sub><sup>131</sup>I<sub>6</sub>N<sub>1718</sub>O<sub>2024</sub>S<sub>52</sub> . (non-glycosylated)

MOLECULAR WEIGHT	146.12 kDa (non-glycosylated)
TRADEMARK	None as yet
SPONSOR	Actinium Pharmaceuticals
CODE DESIGNATIONS	Iomab-B (I-131-BC8)
<u>CAS</u> REGISTRY NUMBER	2097132-02-8
UNII	71RR81V666
WHO NUMBER	10856

gbk