

STATEMENT ON A NONPROPRIETARY NAME ADOPTED BY THE USAN COUNCIL

USAN (MN-68)

OBEROTATUG RAVTANSINE

PRONUNCIATION

oh'' ber oh' tah tug rav tan' seen

THERAPEUTIC CLAIM

Antineoplastic

CHEMICAL NAMES

Immunoglobulin G1 [de-449-lysine], anti-(human lymphocyte antigen 75) (human clone OBT076_16A5 γ 1-chain), disulfide with human clone OBT076_16A5 κ -chain, dimer, N^6 -amide with N^2 -[4-[(3-carboxypropyl)dithio]-4-methyl-1-oxopentyl]- N^2 -deacetylmaytansine

immunoglobulin G1-kappa, anti-[*Homo sapiens* LY75 (human lymphocyte antigen 75, C-type lectin domain family 13 member B, CLEC13B, DEC-205, CD205)], *Homo sapiens* monoclonal antibody; conjugated to maytansinoid DM4; gamma1 heavy chain *Homo sapiens* (1-448) [VH (*Homo sapiens* IGHV3-15*01 (98.0%) -(IGHD) - IGHJ4*01 (100%), CDR-IMGT [8.10.10] (26-33.51-60.99-108)) (1-119) -*Homo sapiens* IGHG1*03v, G1m3>G1m17, nG1m1 CH1 K120, CH3 E12, M14 (CH1 R120>K (216) (120-217), hinge 1-15 (218-232), CH2 (233- 342), CH3 E12 (358), M14 (360) (343-447), CHS K2>del (448)) (120-448)], (222-214')-disulfide with kappa light chain *Homo sapiens* (1'-214') [V-KAPPA (*Homo sapiens* IGKV1-39*01 (88.4%) - IGKJ1*01 (100%), CDR-IMGT [6.3.9] (27-32.50-52.89-97)) (1'- 107') -*Homo sapiens* IGKC*01 (100%), Km3, A45.1 (153), V101 (191) (108'-214')]; dimer (228-228'' :231-231'')-bisdisulfide, produced in Chinese hamster ovary (CHO) cells, derived from the cell line CHO-K1SV, glycoform alfa; conjugated, on an average of 3 to 4 lysyl, to maytansinoid DM4 [N^2 - deacetyl- N^2 -(4-mercapto-4- methyl-1-oxopentyl)- maytansine] via the reducible SPDB linker [N - succinimidyl 4-(2-pyridyldithio)butanoate]

STRUCTURAL FORMULA

Heavy Chains: γ 1-chain (H, H'')

EVQLVESGGG	LVKPGGSLRL	SCAASGFTYS	NAWMSWVRQA	PGKGLEWVGR	50
IKSKTDGGTT	DYAAPVQGRF	TISRDDSKNT	LYLQMNSLKT	EDTAVYYCTI	100
FGVVSFDYWG	QGTLVTVSSA	STKGPSVFPPL	APSSKSTSGG	TAALGCLVKD	150
YFPEPVTVSW	NSGALTSGVH	TFFPAVLQSSG	LYSLSSVVTV	PSSSLGTQTY	200
ICNVNHKPSN	TKVDKKEVEPK	SCDKTHTCPP	CPAPELLGGP	SVFLFPPKPK	250
DTLMIISRTPE	VTCVVVDVSH	EDPEVKFNWY	VDGVEVHNAK	TKPREEQYNS	300
TYRVVSVLTV	LHQDWLNGKE	YKCKVSNKAL	PAPIEKTIISK	AKGQPREPQV	350
YTLPPSREEM	TKNQVSLTCL	VKGFYPSDIA	VEWESNGQPE	NNYKTTTPVL	400
DSDGSFFFLYS	KLTVDKSRWQ	QGNVFSCSVM	HEALHNHYTQ	KSLSLSPG	448

Light chains: κ -chain (L', L''')

DVQMTQSPSS	LSASVGDRTV	ITCRASQGIS	DYLSWYQORP	GKAPNLLIYA	50'
ASNLKIGVPS	RFSGSGSGTD	FLLTISTLQP	EDFATYYCQQ	SYRSPWTFGQ	100'
GTKVEIKRTV	AAPSVFIFPP	SDEQLKSGTA	SVVCLLNNFY	PREAKVQWKV	150'
DNALQSGNSQ	ESVTEQDSKD	STYLSLSTLT	LSKADYEKHK	VYACEVTHQG	200'
LSSPVTKSFN	RGEC				214'

Disulfide bridges: in red, bold text, shaded text indicates interchain (total 16 bridges)

Intra-H(C23-C104)	22-98	146-202	263-323	369-427
	22''-98''	146''-202''	263''-323''	369''-427''
Intra-L(C23-C104)	23'-88'	134'-194'		
	23'''-88'''	134'''-194'''		
Intra-H-L(h 5-CL 126)	222-214'	222''-214'''		
Inter-H-H(h 11, h 14)	228-228''	231-231''		

N-Glycosylation sites: in green bold text

299 **299''** (H CH2 N84.4). Fucosylated complex bi-antennary CHO-type glycans

CDR-IMGT Regions: in bold light blue (protein sequence numbering from above sequence, not IMGT respective sequence numbering)

Heavy Chain CDR1-3 (H, H''):	26-33 (8)	51-60 (10)	99-108 (10)
	26''-33'' (8)	51''-60'' (10)	99''-108'' (10)
Light Chain CDR1-3 (L', L'''):	27'-32' (6)	50-52' (3)	89'-97' (9)
	27'''-32''' (6)	50'''-52''' (3)	89'''-97''' (9)

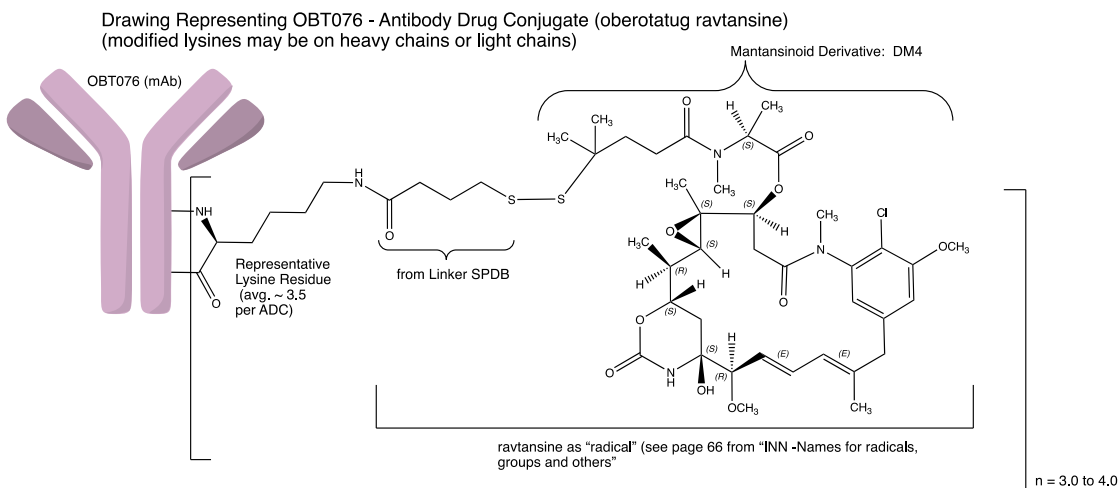
Lysines Modified with Drug-Linker: 50 possible substitutions as predicted by the drug manufacturer (average of 3.5 per ADC molecule, may be on heavy chains or light chains)

Possible Heavy Chain Positions (H, H'') **13, 43, 52, 54, 135, 215, 216, 224, 248, 276, 292, 322, 324, 328, 336, 342, 416**

13'', 43'', 52'', 54'', 135'', 215'', 216'', 224'', 248'', 276'', 292'', 322'', 324'', 328'', 336'', 342'', 416''

Possible Light Chain Positions (L', L''') **42', 55', 103', 107', 145', 188', 190', 207'**

42''', 55''', 103''', 107''', 145''', 188''', 190''', 207'''



MOLECULAR FORMULA **C₆₅₆₃H₁₀₁₃₅N_{1718.5}Cl_{3.5}O₂₀₅₃S₅₁ (unglycosylated)**

MOLECULAR WEIGHT **147.71 kDa (unglycosylated)**

TRADEMARK **None as yet**

SPONSOR **Oxford BioTherapeutics Ltd.**

CODE DESIGNATIONS **OBT076, MEN1309**

CAS REGISTRY NUMBER **2641919-35-7**

UNII **N2Q7V645PL**

WHO NUMBER

12296

gbk