

June 26, 2013

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

USAN (AB-75) SIMTUZUMAB

PRONUNCIATION sim tooz' ue mab

THERAPEUTIC CLAIM Fibrosis, oncology

## CHEMICAL NAMES

1. Immunoglobulin G4, anti-(human lysyl oxidase homolog 2) (human-Mus musculus monoclonal GS-6624 heavy chain), disulfide with human-Mus musculus monoclonal GS-6624  $\kappa$ -chain, dimer
2. Immunoglobulin G4-kappa, anti-[*Homo sapiens* LOXL2 (lysyl oxidase-like 2)], humanized monoclonal antibody; gamma4 heavy chain (1-443) [humanized VH (*Homo sapiens* IGHV1-2\*02 (80.60%) -(IGHD)-IGHJ4\*01 L123>T (111) [8.8.9] (1-116) -*Homo sapiens* IGHG4\*01 hinge S10>P (224) (117-443)], (130-219')-disulfide with kappa light chain (1'-219') [humanized V-KAPPA (*Homo sapiens* IGKV2D-29\*02 (86.00%) -IGKJ4\*01) [11.3.9] (1'-112') -*Homo sapiens* IGKC\*01 (113'-219')]; (222-222":225-225")-bisdisulfide dimer

## STRUCTURAL FORMULA

## Heavy Chain

|            |            |            |            |            |     |
|------------|------------|------------|------------|------------|-----|
| QVQLVQSGAE | VKKPGASVKV | SCKASGYAFT | YYLIEWVRQA | PGQGLEWIGV | 50  |
| INPGSGGTNY | NEKFKGRATI | TADKSTSTAY | MELSSLRSED | TAVYFCARNW | 100 |
| MNFDYWGGQT | TVTSSASTK  | GPSVFPLAPC | SRSTSESTAA | LGCLVKDYFP | 150 |
| EPVTVSWNSG | ALTSGVHTFP | AVLQSSGLYS | LSSVVTVPSS | SLGTKTYTCN | 200 |
| VDHKPSNTKV | DKRVESKYGP | PCPPCPAPEF | LGGPSVFLFP | PKPKDTLMIS | 250 |
| RTPEVTCVVV | DVSQEDPEVQ | FNWYVDGVEV | HNAKTKPREE | QFNSTYRVVS | 300 |
| VLTVLHQDWL | NGKEYKCKVS | NKGLPSSIEK | TISKAKGQPR | EPQVYTLPPS | 350 |
| QEEMTKNQVS | LTCLVKGFYP | SDIAVEWESN | GQPENNYKTT | PPVLDSDGSF | 400 |
| FLYSRLTVDK | SRWQEGNVFS | CSVMHEALHN | HYTQKSLSL  | LGK        | 443 |

## Light Chain

|            |            |             |            |            |     |
|------------|------------|-------------|------------|------------|-----|
| DIVMTQTPLS | LSVTPGQPAS | ISCRSSKSL   | HSNGNTYLYW | FLQKPGQSPQ | 50  |
| FLIYRMSNLA | SGVPDRFSGS | GSGTDFTLKI  | SRVEAEDVGV | YYCMQHLEYP | 100 |
| YTFGGGTKVE | IKRTVAAPSV | FIFPPSDEQL  | KSGTASVCL  | LNNFYPREAK | 150 |
| VQWKVDNALQ | SGNSQESVTE | QDSKDYSTYSL | SSTLTLSKAD | YEKHKVYACE | 200 |
| VTHQGLSSPV | TKSFNRGEC  |             |            |            | 219 |

## Disulfide Bridges

|            |             |          |           |           |
|------------|-------------|----------|-----------|-----------|
| 22-96      | 22"-96"     | 23'-93'  | 23""-93"" | 130-219'  |
| 130"-219"" | 143"-199"   | 143-199  | 257-317   | 363-421   |
| 139'-199'  | 139""-199"" | 222-222" | 225-225"  | 257"-317" |
| 363"-421"  |             |          |           |           |

## N-glycosylation sites

293 293"

## MOLECULAR FORMULA

 $C_{6558}H_{10134}N_{1736}O_{2037}S_{50}$

SIMTUZUMAB

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N13

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|                            |                       |
|----------------------------|-----------------------|
| MOLECULAR WEIGHT           | 147.5 KDa             |
| TRADEMARK                  | None as yet           |
| SPONSOR                    | Gilead Sciences, Inc. |
| CODE DESIGNATIONS          | AB0024, GS-6624       |
| <u>CAS</u> REGISTRY NUMBER | 1318075-13-6          |
| WHO NUMBER                 | 9626                  |

gbk