

December 30, 2014

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

|                   |   |
|-------------------|---|
| USAN (BC-140)     | RINUCUMAB   |
| PRONUNCIATION     | ri nuk' ue mab  |
| THERAPEUTIC CLAIM | Treatment of neovascular age-related macular degeneration |
| CHEMICAL NAMES    |   |

1. Immunoglobulin G4, anti-(human platelet-derived growth factor receptor  $\beta$ ) (human monoclonal REGN2176 heavy chain), disulfide with human monoclonal REGN2176  $\kappa$ -chain, dimer
2. Immunoglobulin G4-kappa, anti-(human platelet-derived growth factor receptor b (CD140 antigen-like family member B, PDGFR-1, CD140b)); human monoclonal antibody; g4 heavy chain (1-448) [human VH (IGHV4-39\*01-(IGHD)-IGHJ5\*02) (93%) [10.7.14] (1-122)-IGHG4\*01 (CH1 (123-220), hinge S230>P230 (221-232), CH2 (233-342), CH3 (343-448)) (123-448)](136-215')-disulfide with kappa light chain (1'-215') [human V-KAPPA (IGKV3-20\*01-IGKJ3\*01) (92%) [7.3.9](1'-108')-IGKC\*01 (109'-215')] dimer (226-226'':229-229'')-bisdisulfide

## STRUCTURAL FORMULA

## Heavy chain

|            |            |            |            |             |     |
|------------|------------|------------|------------|-------------|-----|
| QLQLQESGPG | LVKPSETLSL | TCTVSGGSIT | SSSYWGWIR  | QPPGKGLEWI  | 50  |
| GSIYYRGSTN | YNPSLKSRVT | ISVDSSKNQF | YLVSSVTAV  | DTAVYYCARQ  | 100 |
| NGAARPSWFD | PWGQGLVTV  | SSASTKGPSV | FPLAPCSRST | SESTAALGCL  | 150 |
| VKDYFPEPVT | VSWNSGALTS | GVHTFPAVLQ | SSGLYSLSSV | VTVPSSSLGT  | 200 |
| KTYTCNVDHK | PSNTKVDKRV | ESKYGPCCPP | CPAPEFLGGP | SVFLFPPKPK  | 250 |
| DTLMISRTP  | VTCVVVDVSO | EDPEVQFNWY | VDGVEVHNAK | TKPREEQFNS  | 300 |
| TYRVVSVLTV | LHQDWLNGKE | YKCKVSNKGL | PSSIEKTISK | AKGQPREPQV  | 350 |
| YTLPPSQEEM | TKNQVSLTCL | VKGFYPSDIA | VEWESNGQPE | NNYKTTTPVVL | 400 |
| DSDGSFFLYS | RLTVDKSRWQ | EGNVFSCSVM | HEALHNHYTQ | KSLSLSLG    | 448 |

## Light chain

|             |            |             |            |            |      |
|-------------|------------|-------------|------------|------------|------|
| EIVLTQSPDT  | ISLSPGERAT | LSCRASQSSIS | SIYLAWYQQK | PGQAPRLLIY | 50'  |
| GASSRVGTGIP | DRFSVSGSGT | DFTLTISRLE  | PEDFAVYYCQ | HYGISPFTFG | 100' |
| PGTKVDIIRRT | VAAPSVFIFP | PSDEQLKSGT  | ASVVCLLNMF | YPREAKVQWK | 150' |
| VDNALQSGNS  | QESVTEQDSK | DSTYLSSTL   | TLSKADYEKH | KVYACEVTHQ | 200' |
| GLSSPVTKSF  | NRGEC      |             |            |            | 215' |

## Disulfide bridges

|         |           |          |             |           |               |          |            |
|---------|-----------|----------|-------------|-----------|---------------|----------|------------|
| 22-97   | 22"-97"   | 23'-89'  | 23'''-89''' | 135'-195' | 135'''-195''' | 136-215' | 136"-215'" |
| 149-205 | 149"-205" | 228-228" | 231-231"    | 263-323   | 263'''-323''' | 369-427  | 369"-427'" |

## Glycosylation sites (N)

Asn-299 Asn-299'

## MOLECULAR FORMULA

 $C_{6472}H_{9974}N_{1710}O_{2022}S_{38}$  (peptide)

## MOLECULAR WEIGHT

145.3 kDa (protein)

|                            |                                 |
|----------------------------|---------------------------------|
| TRADEMARK                  | None as yet                     |
| SPONSOR                    | Regeneron Pharmaceuticals, Inc. |
| CODE DESIGNATIONS          | REGN2176                        |
| <u>CAS</u> REGISTRY NUMBER | 1569263-06-4                    |
| UNII                       | 10E3O6YI4W                      |
| WHO NUMBER                 | 10175                           |

gbk