Table 2A: pre-mutagenesis framework sequence variability across unstable nanobodies

unstable

partially stable

|  |  |
| --- | --- |
|  | IMGT # 1111111111111111 |
|  |  11111111122222223444444444455555566667777777777888888888899999999990000011222222222 |
|  |  12345678912345678901234569012345678901234567890123456789012345678901234567890123489012345678 |
| **NB#** |  **MAQVQLQESGGGLVQAGGSLRLSCAASMGWFRQAPGKEREFVAATYYADSVKGRFTISRDNAKNTVYLQMNSLKPEDTAVYYCWGQGTQVTVSS** |
| 1 |  **1G6V** V S G T G Q I R  |
| 2 |  **1JTP** D A S G Q L E I  |
| 3 |  **1KXQ** V S S V G S L Q N GI  |
| 4 |  **1KXT** VA S Y C LS RAN A A D  |
| 5 |  **1KXV** V T P S Y R G D SG T V A QG A D D M  |
| 6 |  **1RJC** E A S Q T G V A Q L L L M  |
| 7 |  **1ZV5** D V S E I D G VF Q S  |
| 8 |  **2P42** V G L KG D T  |
| 9 |  **2X6M** G V S R G R A D E I  |
| 10 |  **3CFI** P S V GL W SG S TAP IL R R  |
| 11 |  **3G9A** D S A C L SN T G D VN S R K  |
| 12 |  **3JBC** S T G GA Q K I  |
| 13 |  **3K1K** V A P R Y W GSS E D R  |
| 14 |  **3K74** P Y V R GL W SM K E L TS K  |
| 15 |  **3K7U** T LF N R T  |
| 16 |  **3V0A** V P S V EGF W SSAWDG A T D L SN Q G  |
| 17 |  **3ZKQ** P T V G W ST T R L R P  |
| 18 |  **4C58** S G A G CS S R Q T AF L S I A  |
| 19 |  **4GRWf** E V P I G SC ES  |
| 20 |  **4HEM** V P T RN NM  |
| 21 |  **4HEP** D V P E I G SY V T S L K L  |
| 22 |  **4I0C** S E A G P Q RM E M  |
| 23 |  **4I13** A I V GE E I MN V R N R  |
| 24 |  **4KML** P G SSD T M N T  |
| 25 |  **4KRM** K E S T T SG G D I  |
| 26 |  **4LAJ** V P I G SC Y K  |
| 27 |  **4LGP** V T P T G I H WLVC V V A L D GI  |
| 28 |  **4LGS** V S A S L AL N  |
| 29 |  **4LHJ** V Y L TSN G S  |
| 30 |  **4MQS** D I Q G SC I A S E V  |
| 31 |  **4OCL** P VD A T R R  |
| 32 |  **4QGY** V I G SC P A S K M K  |
| 33 |  **4QKX** Y Q L N N A  |
| 34 |  **4S10** S R A K S DN N D  |
| 35 |  **4W6W** S G CVN Q S K L E L S  |
| 36 |  **4W6X** S T G CS Q D F R I  |
| 37 |  **4W6Y** S A V G S S T  |
| 38 |  **4WEM** E Q GYLN G F SN S G F K  |
| 39 |  **4WEN** P T Y SK H EF T D K  |
| 40 |  **4WEU** K Y IA L D  |
| 41 |  **4X7C** D V P Y Q L S N G R R  |
| 42 |  **5IVN** V P T T I G SC FMN D I  |