Mov19 CDRs	FR1-21 CDRs
Light Chain	**Light Chain**
CDR1: KASQSVSFAGTSLMH (SEQ ID NO:7)	CDR1: KASDHINNWLA (SEQ ID NO:27)
CDR2: RASNLEA (SEQ ID NO:8)	CDR2: GATSLET (SEQ ID NO:28)
CDR3: QQSREYPYT (SEQ ID NO:9)	CDR3: QQYWSTPFT (SEQ ID NO:29)
Heavy Chain	**Heavy Chain**
CDR1: GYFMN (SEQ ID NO:1)	CDR1: SSYGMS (SEQ ID NO:30)
CDR2 (AbM): RIHPYDGDTF (SEQ ID NO:2)	CDR2 (AbM): TISSGGSYTY (SEQ ID NO:31)
CDR3: YDGSRAMDY (SEQ ID NO:3)	CDR3: DGEGGLYAMDY (SEQ ID NO:32)
Kabat Defined Mov19 HC CDR2	**Kabat Defined FR1-21 HC CDR2**
Murine HC CDR2: RIHPYDGDTFYNQNFKD (SEQ ID NO:128)	**Murine** HC CDR2: TISSGGSYTYYPDGVKG (SEQ ID NO:33)
Human HC CDR2: RIHPYDGDTFYNQKFQG (SEQ ID NO:129)	**Human** HC CDR2: TISSGGSYTYYSPGFQG (SEQ ID NO:34)

Table 1A: The Mov19 and FR1-21 light and heavy chain CDRs as defined for resurfacing are provided. The Kabat definition for heavy chain CDR2 is also given for both the murine and human antibodies.

[0245] None of the residue changes raised concerns for impacting the interactions of either the Mov19 or FR1-21 CDRs with their target epitopes on folate receptor 1, so no surface back mutations were considered for the humanized sequences of either antibody. The resurfaced Mov19 sequence did however introduce a consensus N-linked glycosylation site at the light chain N74 (light chain version 1.00), so a second humanized light chain version was made to remove this site. A review of the Kabat human light chain sequence database revealed that threonine is the most common residue found at light chain position 74 so the humanized Mov19 light chain version 1.60 was built with a threonine at position 74. Position 74 is not a surface residue so this residue

Table 1B: The FR1-48, 49, 57, and 65 light and heavy chain CDRs are provided. The Kabat definition for heavy chain CDR2 is also given for both the murine and human antibodies.

FR1-48 CDRs	**FR1-49 CDRs**	**FR1-57 CDRs**	**FR1-65 CDRs**
Light Chain	**Light Chain**	**Light Chain**	**Light Chain**
CDR1 –RASENIYSNLA (SEQ ID NO:57)	CDR1 –RASENIYTNLA (SEQ ID NO:63)	CDR1 – RASQNINNNLH (SEQ ID NO:69)	CDR1 –KASQNVGPNVA (SEQ ID NO:75)
CDR2 - AATNLAD(SEQ ID NO:58)	CDR2 – TASNLAD (SEQ ID NO:64)	CDR2 – YVSQSVS (SEQ ID NO:70)	CDR2 – SASYRYS (SEQ ID NO:76)
CDR3 – QHFWASPYT (SEQ ID NO:59)	CDR3 – QHFWVSPYT (SEQ ID NO:65)	CDR3 – QQSNSWPHYT (SEQ ID NO:71)	CDR3 – QQYNSYPYT (SEQ ID NO:77)
Heavy Chain	**Heavy Chain**	**Heavy Chain**	**Heavy Chain**
CDR1 –TNYWMQ (SEQ ID NO:60)	CDR1 -TNYWMY (SEQ ID NO:66)	CDR1 -SSFGMH (SEQ ID NO:72)	CDR1 -TSYTMH (SEQ ID NO:78)
CDR2 – AIYPGNGDSR (SEQ ID NO:61)	CDR2 - AIYPGNSDTT (SEQ ID NO:67)	CDR2 - YISSGSSTIS (SEQ ID NO:73)	CDR2 -YINPISGYTN (SEQ ID NO:79)
CDR3 – RDGNYAAY (SEQ ID NO:62)	CDR3 - RHDYGAMDY (SEQ ID NO:68)	CDR3 - EAYGSSMEY (SEQ ID NO:74)	CDR3 - GGAYGRKPMDY (SEQ ID NO:80)
Kabat HC CDR2	**Kabat HC CDR2**	**Kabat HC CDR2**	**Kabat HC CDR2**
Murine AIYPGNGDSRYTQKFKG (SEQ ID NO:81)	Murine AIYPGNSDTTYNLKFKG (SEQ ID NO:83)	Murine YISSGSSTISYADTVKG (SEQ ID NO:85)	Murine YINPISGYTNYNQKFKD (SEQ ID NO:87)
Human AIYPGNGDSRYTQKFQG (SEQ ID NO:82)	Human AIYPGNSDTTYNQKFQG (SEQ ID NO:84)	Human YISSGSSTISYADSVKG (SEQ ID NO:86)	Human YINPISGYTNYNQKFQG (SEQ ID NO:88)

Mov19 CDRs	FR1-21 CDRs
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CDR1: GYFMN (SEQ ID NO:1)	CDR1: SSYGMS (SEQ ID NO:30)
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CDR3: YDGSRAMDY (SEQ ID NO:3)	CDR3: DGEGGLYAMDY (SEQ ID NO:32)
Kabat Defined Mov19 HC CDR2	**Kabat Defined FR1-21 HC CDR2**
Murine HC CDR2: RIHPYDGDTFYNQNFKD (SEQ ID NO:128)	**Murine** HC CDR2: TISSGGSYTYYPDGVKG (SEQ ID NO:33)
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CDR2 - AATNLAD(SEQ ID NO:58)	CDR2 – TASNLAD (SEQ ID NO:64)	CDR2 – YVSQSVS (SEQ ID NO:70)	CDR2 – SASYRYS (SEQ ID NO:76)
CDR3 – QHFWASPYT (SEQ ID NO:59)	CDR3 – QHFWVSPYT (SEQ ID NO:65)	CDR3 – QQSNSWPHYT (SEQ ID NO:71)	CDR3 – QQYNSYPYT (SEQ ID NO:77)
Heavy Chain	**Heavy Chain**	**Heavy Chain**	**Heavy Chain**
CDR1 –TNYWMQ (SEQ ID NO:60)	CDR1 -TNYWMY (SEQ ID NO:66)	CDR1 -SSFGMH (SEQ ID NO:72)	CDR1 -TSYTMH (SEQ ID NO:78)
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CDR3 – RDGNYAAY (SEQ ID NO:62)	CDR3 - RHDYGAMDY (SEQ ID NO:68)	CDR3 - EAYGSSMEY (SEQ ID NO:74)	CDR3 - GGAYGRKPMDY (SEQ ID NO:80)
Kabat HC CDR2	**Kabat HC CDR2**	**Kabat HC CDR2**	**Kabat HC CDR2**
Murine AIYPGNGDSRYTQKFKG (SEQ ID NO:81)	Murine AIYPGNSDTTYNLKFKG (SEQ ID NO:130)	Murine YISSGSSTISYADTVKG (SEQ ID NO:84)	Murine YINPISGYTNYNQKFKD (SEQ ID NO:86)
Human AIYPGNGDSRYTQKFQG (SEQ ID NO:82)	Human AIYPGNSDTTYNQKFQG (SEQ ID NO:83)	Human YISSGSSTISYADSVKG (SEQ ID NO:85)	Human YINPISGYTNYNQKFQG (SEQ ID NO:87)