

```

<-----FR1-IMGT-----><-----CDR1-IM
7-4-1*04_5 1 Q V Q L V Q S G S E L K K P G A S V K V S C K A S G Y T F T 90
7-4-1*04 1 CAGGTGCAGCTGGTGCATCTGGGTCTGAGTTGAAGAAGCCTGGGGCCTCAGTGAAGTTTCTGCAAGGCTTCTGGATACACCTTCACT 90
          Q V Q L V Q S G S E L K K P G A S V K V S C K A S G Y T F T

GT-----><-----FR2-IMGT-----><-----CDR2-IMGT-----><-----
7-4-1*04_5 91 S Y A M N W V R Q A P G Q G L E W M G W I N T N T G N L T Y 180
7-4-1*04 91 AGCTATGCTATGAATTGGGTGCGACAGGCCCTGGACAAGGGCTTGAGTGGATGGGATGGATCAACACCAACTGGGAACCTAACGTAT 180
          S Y A M N W V R Q A P G Q G L E W M G W I N T N T G N P T Y

-----FR3-IMGT-----
7-4-1*04_5 181 A Q G F T G R F V F S M D T S V S M A Y L H I S S L K A E D 270
7-4-1*04 181 GCCCAGGGCTTCACAGGACGGTTTGTCTTCTCCATGGACACCTCCGTCAGCATGGCATATCTTCATATCAGCAGCCTAAAGGCTGAGGAC 270
          A Q G F T G R F V F S L D T S V S M A Y L Q I S S L K A E D

----->
7-4-1*04_5 271 T A V Y Y C A R 296
7-4-1*04 271 ACTGCCGTGTATTACTGTGCGAGAGA 296
          T A V Y Y C A R

```

S7 Figure: Pairwise alignment of the putative 7-4-1 allele, 7-4-1*04.5, with its closest matching IMGT allele, 7-4-1*04. The allele 7-4-1*04.5 was found in individuals NA12877, NA12878, NA12879, NA12883, NA12884, NA12886, NA12888, NA12891, and NA12893. Pairwise alignment was performed using the online IgBLAST tool.