**Nixing the 5-rule cutoff: Another minor tail protein in F1 phage DoRead?**

Is draft feature 23 of DoRead at position 23627-24265 bp (639 bp long), a minor tail protein? Its aa sequence is:

MAYDKQAWQNAPSTETPLSAGALNHMEDGIADAHTLAESKADSEHTHVLADVTDVVASAGEVNVLAGATVSTGELNTLDGVTSNVQTQLDGKAASSHNHSAANVTSGTLDIARIPVGNSGSTVCVGNDSRLSDQRVPVDGSVSSAKIASGSITNTHVSPSAAIAASKMSTGVQASLTKADGSVQKSGTAEGMWMGTTLPGTGTAGVLYVVVPZ

Minor tail proteins are typically the big genes (at least1000 bp long) downstream the tape measure…There are usually not more than 5 (<https://genomicsguide.seaphages.org/>). We have already identified the other minor tail proteins.

We have previously called this NKF, though there are some hits to minor tail proteins in some phages. But I notice a recent deposit in HHPred by Freeman K.G. et al, and this is the is the only significant hit in HHpred, hitting “Minor tail protein; Bacteriophage, tail tip” of Mycobacterium phage Bxb1 with 99.11% probability. Its PDB description at <https://www.rcsb.org/structure/9D93>

HHPred is (before it disappears: <https://toolkit.tuebingen.mpg.de/jobs/1833010>)

I wanted to cross-check before making the final call. See HHPred next page

Thanks!

Fred

