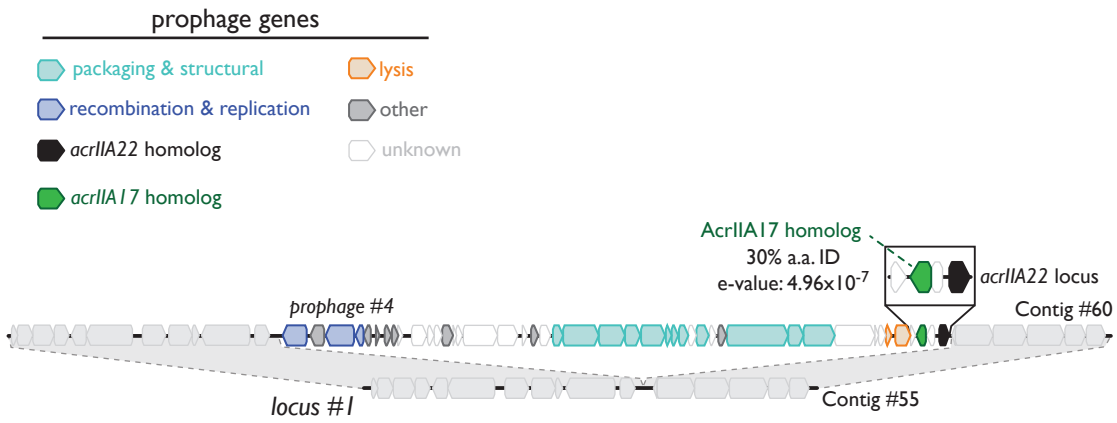

S5 Fig. **Genomic proximity of *acrIIA22* homologs to other *acr* genes.** An *acrIIA22*-encoding prophage like the one depicted in Fig 2A and those in S4A Fig is shown. This prophage encodes for a homolog of the previously described SpyCas9 inhibitor *acrIIA17* within one kilobase of an *acrIIA22* homolog. Sequence relatedness between the depicted *acrIIA17* gene and the originally discovered acrIIA17 is shown[22]. Because phages often encode multiple *acr*s in the same locus, the co-localization of *acrIIA17* with *acrIIA22* is consistent with the latter gene functioning natively to inhibit CRISPR-Cas activity. Prophage genes are colored by functional category, per the legend and as in S4A Fig. Contigs are numbered to indicate their descriptions in S3 Table, which contains their metadata, taxonomy, and sequence retrieval information. All sequences and annotations can also be found in S2 Data and S3 Data.