



Figure S8: Comparison of Nb.BsmI off-target identification with and without enrichment on streptavidin. A) Normalized read coverage and transition mutation rate across the whole plasmid when DENT-seq is performed with (left) and without (right) the streptavidin pull-down. The left panel displays the same data shown in Fig. 4B and is recreated here for the comparison. Only 4 Nb.BsmI off-targets are identifiable without the pull-down as compared to 12 with. In addition, identified off-targets show less transition mutational signal without the pull-down. **B)** Comparison of mutational signal across the plasmid with and without the pull-down. Identifiable off-targets all have significantly higher signal when the pull-down is performed compared to when it is not performed. Signal at single-mismatch sites not identified as Nb.BsmI off-targets and at multiple-mismatch sites does not appear to differ between the two scenarios. Site mismatch categorization is performed by comparing the plasmid reference sequence to the Nb.BsmI on-target sequence. **C)** Number of sites identified as the transition mutation cutoff is changed, sorted by level of homology to the Nb.BsmI on-target sequence. Sites with a single mismatch to the Nb.BsmI on-target sequence have higher signal when the pull-down is performed (green vs. gray lines) while the signal at sites with more mismatches does not change (red vs. black lines). Data in green here (all single-mismatch sites) represent both data in green (single-mismatch sites identified as Nb.BsmI off-targets) and purple (other single-mismatch sites) in **B**. It is important to note that while single-mismatch sites are more likely to represent true off-target cutting by Nb.BsmI than multiple mismatch sites, DENT-seq mutational signal at mismatch sites can in principle arise from either off-target cutting or noise from the DENT-seq assay.