Table S1. Examples of identified BC-ROI combinations.

| BCs |  |  | BC-ROI combinations |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Sequence | Read count | BC sequence | ROI sequence | Read count | Proportion of chimeric molecules |
| 1 | ATATAGTCATGCCCTAAG ATATAGTCAGCCCCTAAG | $\begin{gathered} 248 \\ 3 \end{gathered}$ | ATATAGTCATGCCCTAAG | TAACTGAT | 242 | $\begin{aligned} & 1 / 251 \\ & (0.4 \%) \end{aligned}$ |
|  |  |  |  | TAACTGCT | 2 |  |
|  |  |  |  | TAACTGGT | 1 |  |
|  |  |  |  | TAACGGAT | 1 |  |
|  |  |  |  | TACCTGAT | 1 |  |
|  |  |  |  | ACTGTTGG | 1 |  |
|  |  |  | ATATAGTCAGCCCCTAAG | TAACTGAT | 3 |  |
| 2 | CTAGTATGATACACATCT CTAGTATGATATACATCT | $\begin{gathered} 99 \\ 2 \end{gathered}$ | CTAGTATGATACACATCT <br> CTAGTATGATATACATCT | TAACTGAT | 96 | $\begin{gathered} 0 / 101 \\ (0 \%) \end{gathered}$ |
|  |  |  |  | TAACTCAT | 2 |  |
|  |  |  |  | TAACTGGT | 1 |  |
|  |  |  |  | TAACTGAT | 2 |  |

Sequences of genuine BCs and ROIs (i.e. the most represented sequences within the groups defined by the algorithm used) are in bold characters.
Mutant variants of genuine BCs and ROIs (BCs with up to 2 nucleotide substitutions and ROIs with 1 nucleotide substitution) are in regular font; the substitutions are underlined.
A chimeric ROI is in red.

