**VH CDR1 Alignments**

**A1**

```
SEQ ID No: 21     ggctacgcattcagtaactcctggataaactgg
SEQ ID No: 33     ggctacgcattcagtagctactggatgaactgg
                  ********************* ** ****** ******
```

**A2**

```
SEQ ID No: 22     ggttactcattcattgagtacaccataaactgg
SEQ ID No: 35     ggttactcattcactgactacaacatgaactgg
                  ************** *** **** *** ******
```

**A3**

```
SEQ ID No: 62     ggctacacattctctgactactgggtacactgg
SEQ ID No: 68     ggctacaccttcaccagctactggatgcactgg
                  ******** *** *   ******* * ******
```

**Figure 1a**

**VH CDR2 Alignments**

**A1**

```
SEQ ID No: 23     ggacagatttatcctggagattatgatactaactacaatggaaaattcaag
SEQ ID No: 34     ggacagatttatcctggagatggtgatactaactacaacggaaagttcaag
                  ********************  *************** ***** ******
```

**A2**

```
SEQ ID No: 24     ggaaatattgatccttattatggaaccacttattacaatcagatgttcacg
SEQ ID No: 36     ggagtaattaatcctaactatggtactactagctacaatcagaagttcaag
                  ***   *** ***** * ***** ** ***   ********** ***** *
```

**A3**

```
SEQ ID No: 63     ggagcgattgatggttctgatacttttaatgactacagtcagaagtttaag
SEQ ID No: 69     ggagagattgatccttctgatagttatactaactacaatcaaaagttcaag
                  **** *******  ******** **  * * ****** *** ***** ***
```

**Figure 1b**

**VK CDR1 Alignments**

**A1**

```
SEQ ID No: 27     actgccagctcacgtgtaagttccagttacttgcac
SEQ ID No: 37     actgccagctcaagtgtaagttccagttacttgcac
                  ************ ************************
```

**A2**

```
SEQ ID No: 28     agtgccagctcaagtgtaacttacatgtac
SEQ ID No: 40     agtgccagctcaagtgtaagttacatgtac
                  ******************* **********
```

**A3**

```
SEQ ID No: 65     cgagcaagtgaaaacatttacagttatttagca
SEQ ID No: 70     cgagcaagtgagaatatttacagttatttagca
                  *********** ** ******************
```

**Figure 2a**

**VK CDR2 Alignments**

**A1**

```
SEQ ID No: 29     agtacatccaacctggcttct
SEQ ID No: 38     agcacatccaacctggcttct
                  ** ******************
```

**A2**

```
SEQ ID No: 30     gacacatccaacctggcttct
SEQ ID No: 41     gacacatccaacctggcttct
                  *********************
```

**A3**

```
SEQ ID No: 66     aatacaaaaaccttaggagaa
SEQ ID No: 71     aatgcaaaaaccttagcagaa
                  *** ************ ****
```

**Figure 2b**

**VK CDR3 Alignments**

**A1**

```
SEQ ID No: 31     caccagtatcatcgttccccgtacacg
SEQ ID No: 39     caccagtatcatcgttccccaccca--
                  ********************   **
```

**A2**

```
SEQ ID No: 32     cagcagtggagtaattacccactcacg
SEQ ID No: 42     cagcagtggagtagttacccaccca--
                  ************* ******** **
```

**A3**

```
SEQ ID No: 67     caacatcattatggtactccattcacg
SEQ ID No: 72     caacatcattatggtactcctcc----
                  ********************
```

**Figure 2c**

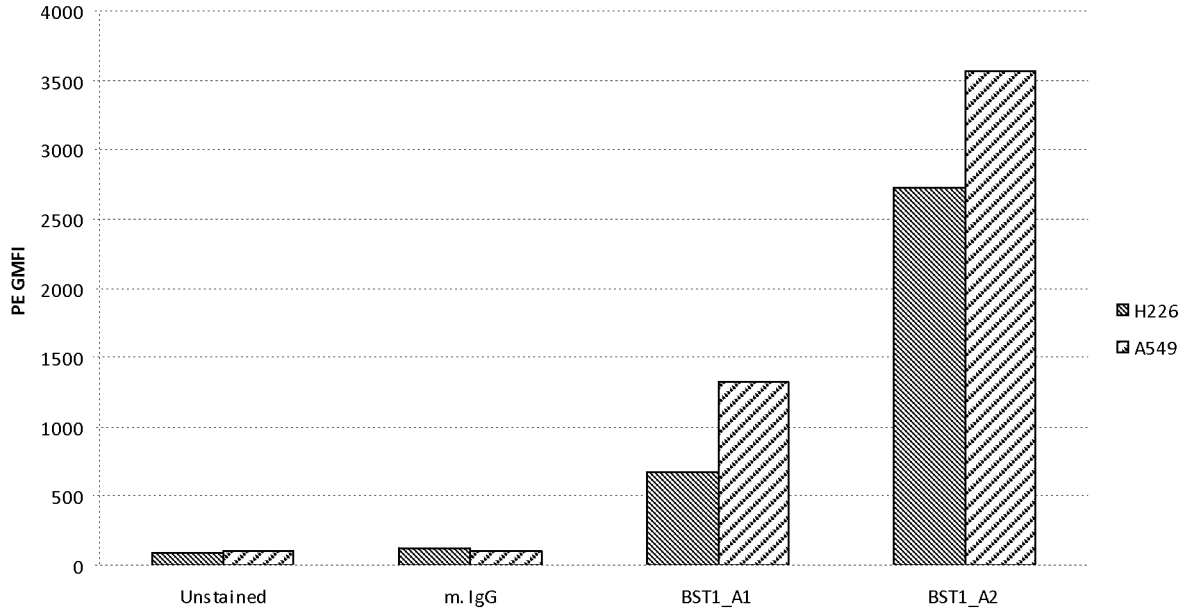



Figure 3a

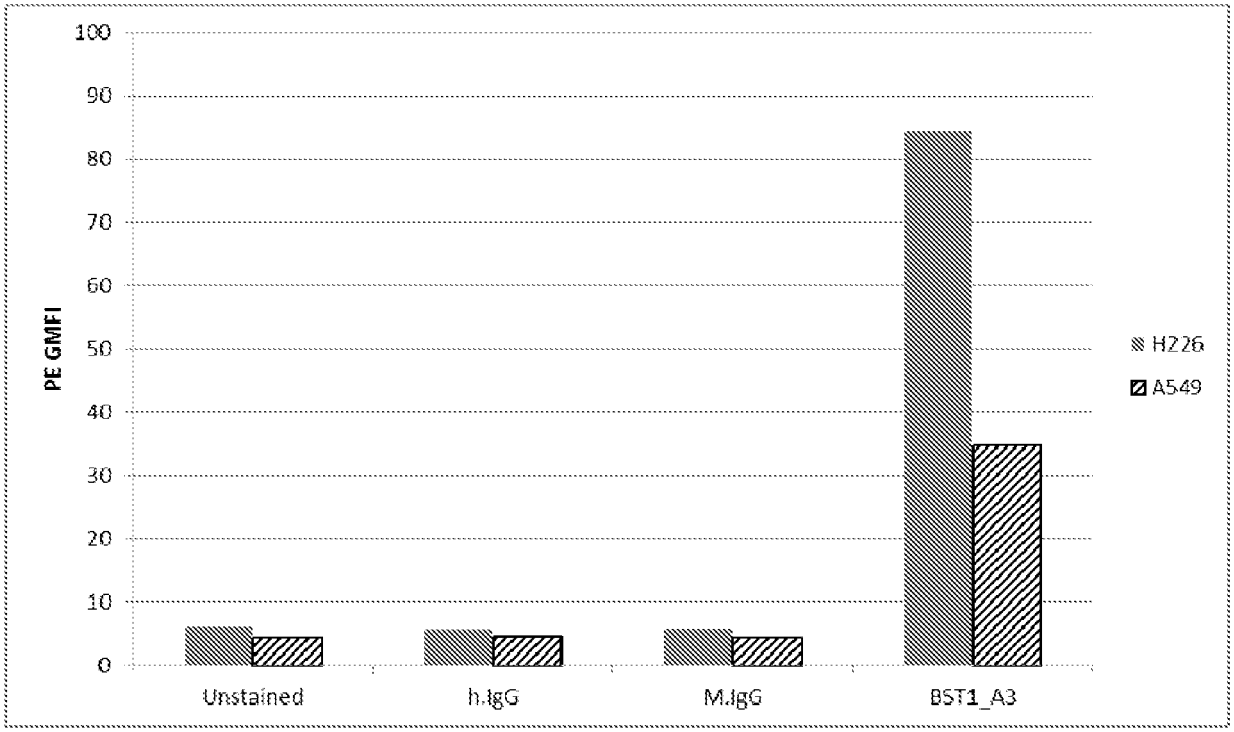



Figure 3b

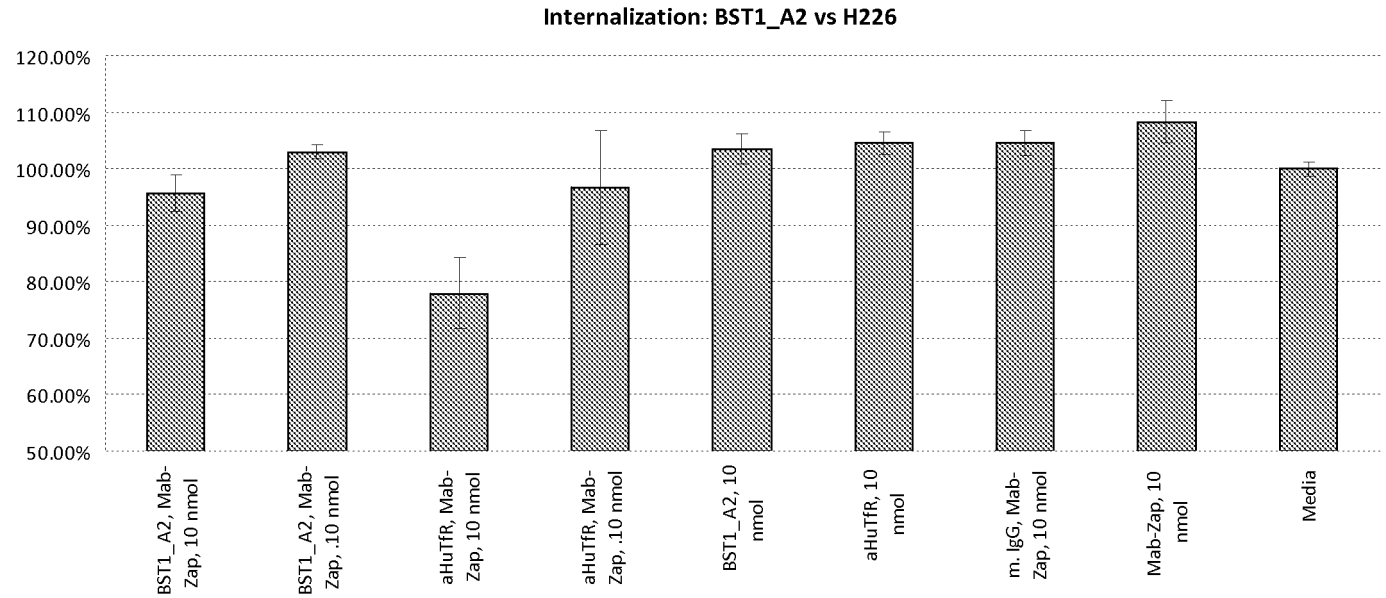



Figure 4a

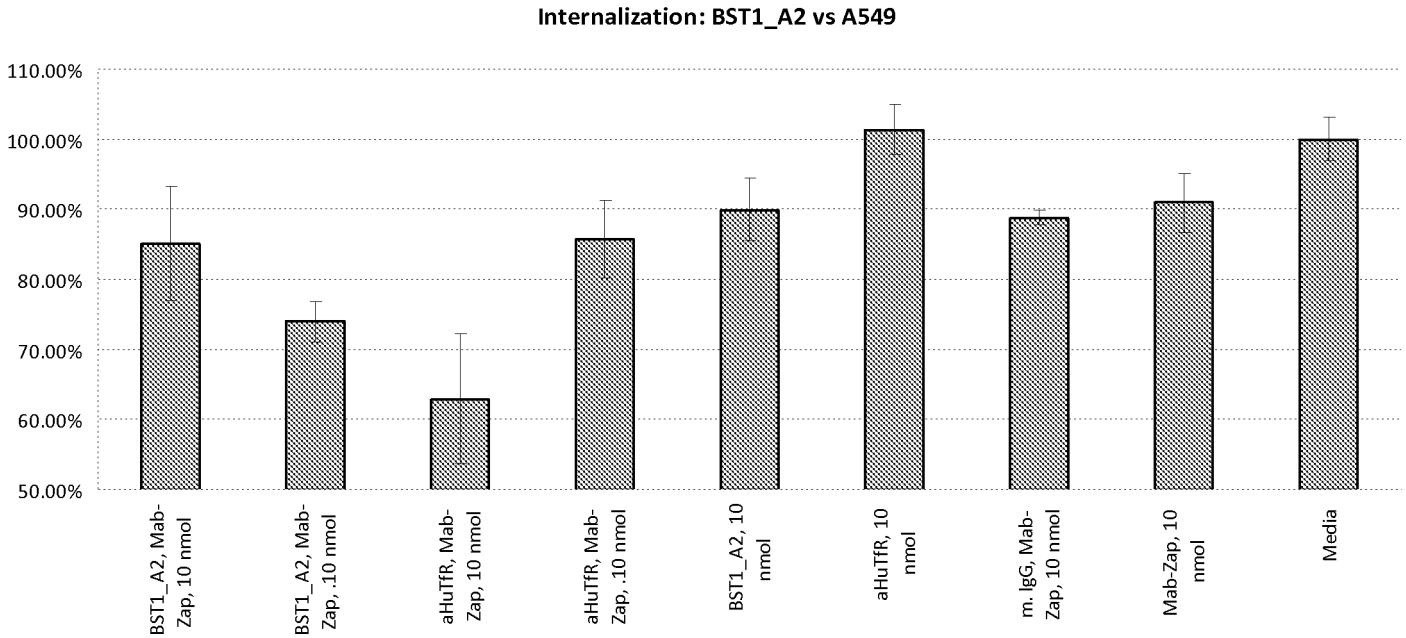



Figure 4b

```
                          1          2          3          4
                 123456789 0123456789 0123456789 0123456789 0123456789
SEQ ID No: 45    QAYLQQSGP ELVKAGASVK MSCKASGYSF IEYTINWVKQ SHGKSLEWIG
SEQ ID No: 46    QVQLVQSGA EVKKPGASVK VSCKASGYSF IEYTINWVRQ APGQGLEWIG
SEQ ID No: 47    QVQLVQSGA EVKKPGASVK VSCKASGYSF TXXXXXWVRQ APGQGLEWMG

                 5           6          7          8
                 01223456789 0123456789 0123456789 0122223456789
SEQ ID No: 45    NIDPYYGTTYY NQMFTGKATL TVDQSSNTAY MQLKSLTSEDSAV
SEQ ID No: 46    NIDPYYGTTYY NQMFTGRATL TVDTSISTAY MELSRLRSDDTAV
SEQ ID No: 47    XXXXXXXXXXX XXXXXXRVTL TRDTSISTAY MELSRLRSDDTAV

                           1          1
                 9         0          1
                 0123456789 0123456789 0123
SEQ ID No: 45    YFCARGSAWF -PYWGQGTLV TVSA
SEQ ID No: 46    YYCARGSAWF -PYWGQGTLV TVSS
SEQ ID No: 47    YYCARXXXXX XXXWGQGTLV PVSS
```

**Figure 5**

```
                          1          2          3
                 123456789 0123456789 0123456789 0123456789
SEQ ID No: 48    DIVMSQSPA IMSASPGEKV TMTCSAS-SS VTYMYWYQQK
SEQ ID No: 49    DIQMTQSPS SLSASVGDRV TITCSAS-SS VTYMYWYQQK
SEQ ID No: 50    DIQMTQSPS SLSASVGDRV TITCXXXXXX XXXXXWYQQK

                 4          5          6          7
                 0123456789 0123456789 0123456789 0123456789
SEQ ID No: 48    PGSSPRLLIY DTSNLASGVP VRFSGSGSGT SYSLTISRME
SEQ ID No: 49    PGKAPKLLIY DTSNLASGVP SRFSGSGSGT DYTLTISSLQ
SEQ ID No: 50    PGKAPKLLIY XXXXXXXGVP SRFSGSGSGT DFTLTISSLQ

                                     1
                 8          9          0
                 0123456789 0123456789 01234567
SEQ ID No: 48    AEDTATYYCQ QWSNYPLTFG AGTKLELK
SEQ ID No: 49    PEDFATYYCQ QWSNYPLTFG QGTKVEIK
SEQ ID No: 50    PEDFATYYCX XXXXXXXXFG QGTKVEIK
```

**Figure 6**

```
SEQ ID No: 12    GNIDPYYGTTYYNQMFT
SEQ ID No: 51    GNIDPYYGTTYYNQMFQ
```

**Figure 7**

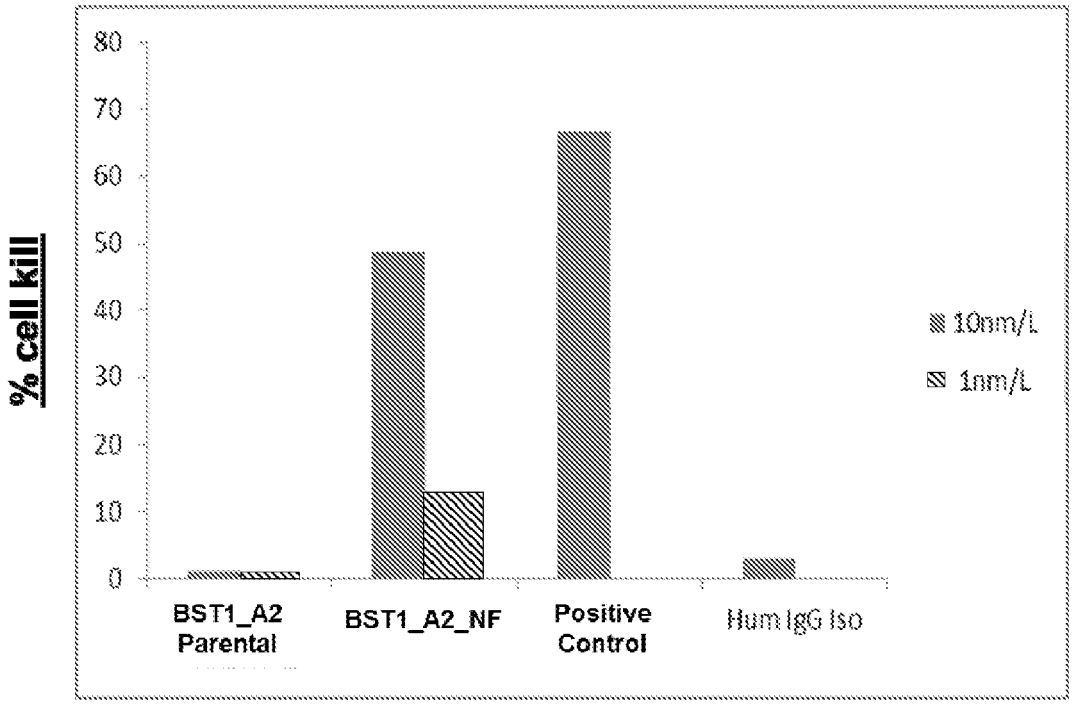



Figure 8a

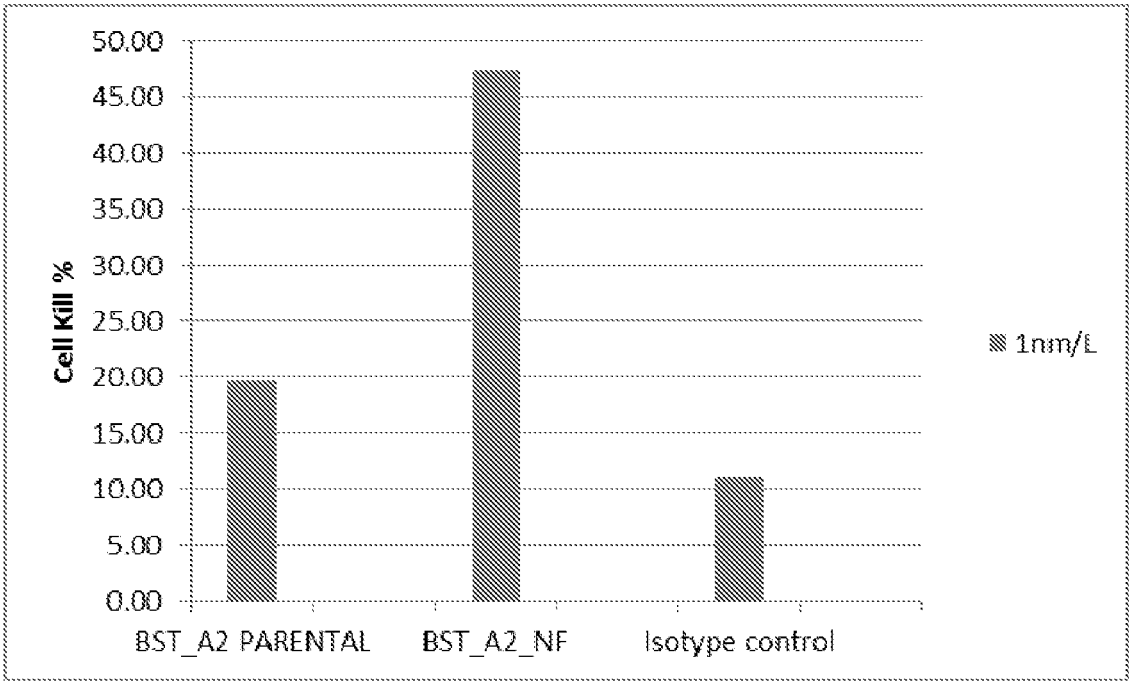



Figure 8b