

**Table S1. Glycoside hydrolase families in the *R. bromii* genome by comparison with three other amylolytic species and two non-amylolytic *Ruminococcus* species from the human colon.**

| Glycoside Hydrolase Family                    | 1 | 2  | 3  | 5  | 8 | 9 | 10 | 11 | 13 | 16 | 18 | 20 | 23 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 35 | 36 | 38 | 42 | 43 | 44 | 48 | 51 | 53 | 57 | 59 | 66 |
|---|---|----|----|----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| <i>Ruminococcus bromii</i> L2-63              |   |    | 1  |    |   |   |    |    | 15 |    |    | 2  | 1  |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| " <i>Ruminococcus bicirculans</i> " 80/3      |   | 4  | 3  | 11 |   |   |    |    | 6  | 1  |    | 2  | 6  | 3  |    |    |    |    | 1  | 1  |    | 2  |    | 2  | 1  |    |    |    |    |    |    | 1  |    |    |
| <i>Ruminococcus chamanellensis</i> 18P13      | 1 | 1  | 1  | 9  | 1 | 7 | 2  | 1  | 4  | 1  |    | 4  | 3  | 1  |    |    |    | 2  |    |    | 1  |    | 1  | 5  | 1  | 1  |    |    |    |    | 1  |    |    |    |
| <i>Eubacterium rectale</i> A1-86              | 1 | 3  | 4  | 1  | 1 |   |    |    | 13 | 1  | 2  | 1  |    |    |    |    |    | 3  | 2  |    | 1  |    | 2  | 2  |    |    | 1  | 2  |    |    |    |    |    |    |
| <i>Bacteroides thetaiotaomicron</i> VPI5482   |   | 32 | 10 |    |   |   |    |    | 8  | 4  | 12 | 14 | 3  | 1  |    | 5  | 9  | 9  | 3  | 6  | 4  | 2  | 3  | 4  | 2  | 1  | 33 |    | 4  | 1  | 1  | 1  |    |    |
| <i>Bifidobacterium adolescentis</i> ATCC15703 | 2 | 3  | 6  | 2  | 1 |   |    |    | 13 |    |    | 3  | 1  | 1  | 1  |    |    | 1  | 1  | 2  | 1  | 2  | 1  | 4  | 7  |    | 2  |    |    |    |    |    |    |    |

| Glycoside Hydrolase Family                    | 67 | 73 | 74 | 76 | 77 | 78 | 84 | 88 | 89 | 92 | 93 | 94 | 95 | 97 | 98 | 99 | 105 | 106 | 109 | 110 | 112 | 113 | 115 | 120 | 123 | 125 | 127 | 130 | NC  |    | Total |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-------|
| <i>Ruminococcus bromii</i> L2-63              |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |    | 21    |
| " <i>Ruminococcus bicirculans</i> " 80/3      | 1  | 2  | 1  |    |    |    |    |    |    | 2  |    |    |    |    |    |    |     |     |     | 1   |     |     |     |     | 2   |     |     |     | 55  |    |       |
| <i>Ruminococcus chamanellensis</i> 18P13      |    | 2  |    |    |    |    |    |    |    | 2  | 1  | 1  |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     | 54 |       |
| <i>Eubacterium rectale</i> A1-86              |    | 2  |    | 1  |    |    |    |    |    | 3  |    |    |    |    |    |    |     |     | 1   |     |     |     |     |     |     |     |     |     |     | 47 |       |
| <i>Bacteroides thetaiotaomicron</i> VPI5482   | 1  | 1  | 10 | 1  | 6  | 1  | 4  | 3  | 24 | 1  | 5  | 10 | 1  | 7  | 3  | 2  | 2   |     | 2   |     | 1   | 3   | 3   | 4   | 2   |     |     |     | 269 |    |       |
| <i>Bifidobacterium adolescentis</i> ATCC15703 |    |    |    |    | 2  |    |    |    |    |    |    |    |    |    |    |    |     |     | 1   |     |     | 1   |     |     |     |     |     |     | 58  |    |       |