

Supplementary materials

Figure S1. The result of PeBA1 blast by protein blast in NCBI

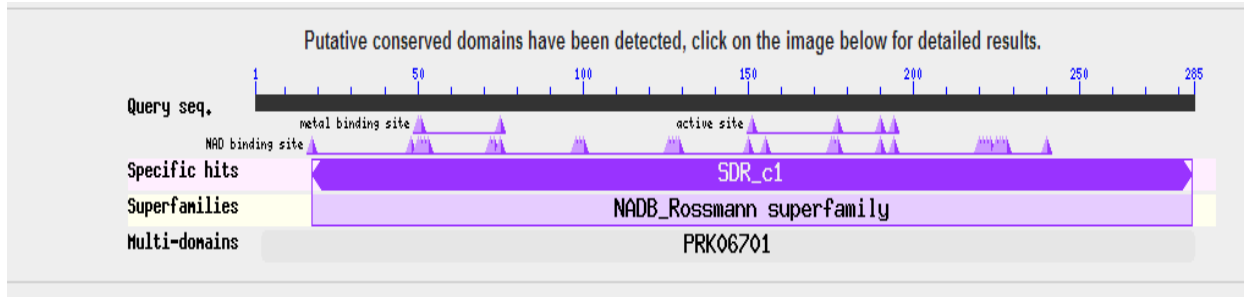


Figure S2. Align PeBA1 with three short chain dehydrogenase members

| | | | | |
|------------|------------------|-----|---|-----|
| PeBA1 | | 1 | MANQKKKTLPPQHQRNRPQGFYVMDPRPVFDKPKAAKLEKGTAIITGGDSGIGRAVSWL | 60 |
| A0A0K6L8U9 | A0A0K6L8U9_BACAM | 1 | MANQKKKTLPPQHQRNRPQGFYVMDPRPVFDKPKAAKLEKGTAIITGGDSGIGRAVSWL | 60 |
| I2HPD1 | I2HPD1_9BACI | 1 | MANQKKKTLPPQHQRNRPQGFYVMDPRPVFDKPKAAKLEKGTAIITGGDSGIGRAVSWL | 60 |
| A0A0E1LL23 | A0A0E1LL23_9BACI | 1 | MANQKKKTLPPQHQRNRPQGFYVMDPRPVFDKPKAAKLEKGTAIITGGDSGIGRAVSWL | 60 |
| A0A0D7XLU6 | A0A0D7XLU6_BACAM | 1 | MANQKKKTLPPQHQRNRPQGFYVMDPRPVFDKPKAAKLEKGTAIITGGDSGIGRAVSWL | 60 |
| | | | ***** | |
| PeBA1 | | 61 | FAKEGANVVIVYFDEHQDAEETKQYVEKEGAKCLL IAGDVGDEAFPCNDVIRQAGQAFPSSI | 120 |
| A0A0K6L8U9 | A0A0K6L8U9_BACAM | 61 | FAKEGANVVIVYFDEHQDAEETKQYVEKEGAKCLL IAGDVGDEAFPCNDVIRQAGQAFPSSI | 120 |
| I2HPD1 | I2HPD1_9BACI | 61 | FAKEGANVVIVYFDEHQDAEETKQYVEKEGAKCLL IAGDVGDEAFPCNDVIRQAGQAFPSSI | 120 |
| A0A0E1LL23 | A0A0E1LL23_9BACI | 61 | FAKEGANVVIVYFDEHQDAEETKQYVEKEGAKCLL IAGDVGDEAFPCNDVIRQAGQAFPSSI | 120 |
| A0A0D7XLU6 | A0A0D7XLU6_BACAM | 61 | FAKEGANVVIVYFDEHQDAEETKQYVEKEGAKCLL IAGDVGDEAFPCNDVIRQAGQAFPSSI | 120 |
| | | | ***** | |
| PeBA1 | | 121 | DILVNNAGEQHVQPGIEKITSHQLIRTPQTNIPSMFYLTAAALPHLRGSSIIINTASITA | 180 |
| A0A0K6L8U9 | A0A0K6L8U9_BACAM | 121 | DILVNNAGEQHVQPGIEKITSHQLIRTPQTNIPSMFYLTAAALPHLRGSSIIINTASITA | 180 |
| I2HPD1 | I2HPD1_9BACI | 121 | DILVNNAGEQHVQPGIEKITSHQLIRTPQTNIPSMFYLTAAALPHLRGSSIIINTASITA | 180 |
| A0A0E1LL23 | A0A0E1LL23_9BACI | 121 | DILVNNAGEQHVQPGIEKITSHQLIRTPQTNIPSMFYLTAAALPHLRGSSIIINTASITA | 180 |
| A0A0D7XLU6 | A0A0D7XLU6_BACAM | 121 | DILVNNAGEQHVQPGIEKITSHQLIRTPQTNIPSMFYLTAAALPHLRGSSIIINTASITA | 180 |
| | | | ***** | |
| PeBA1 | | 181 | YKGHKTLIDYSATKGAIVTFRSLSQSLVTQGIRVNAVAPGPIWTPLIPASFSAKEVEVVF | 240 |
| A0A0K6L8U9 | A0A0K6L8U9_BACAM | 181 | YKGHKTLIDYSATKGAIVTFRSLSQSLVTQGIRVNAVAPGPIWTPLIPASFSAKEVEVVF | 240 |
| I2HPD1 | I2HPD1_9BACI | 181 | YKGHKTLIDYSATKGAIVTFRSLSQSLVTQGIRVNAVAPGPIWTPLIPASFSAKEVEVVF | 240 |
| A0A0E1LL23 | A0A0E1LL23_9BACI | 181 | YKGHKTLIDYSATKGAIVTFRSLSQSLVTQGIRVNAVAPGPIWTPLIPASFSAKEVEVVF | 240 |
| A0A0D7XLU6 | A0A0D7XLU6_BACAM | 181 | YKGHKTLIDYSATKGAIVTFRSLSQSLVTQGIRVNAVAPGPIWTPLIPASFSAKEVEVVF | 240 |
| | | | ***** | |
| PeBA1 | | 241 | GSDVPMQRPGPEVVEVAPSYLYASDDSSYVTGQTIHVNGGTIVNG | 285 |
| A0A0K6L8U9 | A0A0K6L8U9_BACAM | 241 | GSDVPMQRPGPEVVEVAPSYLYASDDSSYVTGQTIHVNGGTIVNG | 285 |
| I2HPD1 | I2HPD1_9BACI | 241 | GSDVPMQRPGPEVVEVAPSYLYASDDSSYVTGQTIHVNGGTIVNG | 285 |
| A0A0E1LL23 | A0A0E1LL23_9BACI | 241 | GSDVPMQRPGPEVVEVAPSYLYASDDSSYVTGQTIHVNGGTIVNG | 285 |
| A0A0D7XLU6 | A0A0D7XLU6_BACAM | 241 | GSDVPMQRPGPEVVEVAPSYLYASDDSSYVTGQTIHVNGGTIVNG | 285 |
| | | | ***** | |

(1). A0A0K6L8U9_BACAM General stress protein 39 *Bacillus amyloliquefaciens*

(2). I2HPD1_9BACI Short chain dehydrogenase *Bacillus* sp. 5B6

(3). A0A0E1LL23_9BACI Short-chain dehydrogenase *Bacillus* sp. BH072