**Table S1**. ID strains, species of *B. cereus* group and source of isolation.

| ID Strain | Bacterial Species | Source | |
|---|---|---|---|
| BC2D | B. cereus E33L | Mozzarella | |
| BC4C | B. cereus 03BB102 | Buffalo Mozzarella | |
| BC5B | B. cereus ATCC 10876 | Burrata | |
| BC91C | B. cereus Rock1 15 | Yogurt | |
| BC126B | B. cereus AH187 | Cacioricotta | |
| BC143A | B. cereus F | Butter | |
| BC182A | B. cereus E33L | Ricotta | |
| BC185A | B. cereus ATCC 10876 | Bulk milk | |
| BC9A | B. cereus ATCC 10876 | Pasteurized milk | |
| BC41A | B. cereus 172560W | Bulk milk | |
| BC56B | B. cereus172560W | Packaged ice cream | |
| BC84A | B. cereus ATCC 10876 | Mozzarella | |
| BC85A | B. cereus 172560W | Mozzarella | |
| BC99A | B. cereus 172560W | Mozzarella | |
| BC123A | B. cereus 172560W | Junket | |
| BC128B | B. cereus 172560W | Scamorza | |
| BC138A | B. cereus AH187 | Quark | |
| BC156C | B. cereus 172560W | Semi-cured cheese | |
| BC166A | B. cereus CI | Mozzarella | |
| BC178A | B. cereus 172560W | Quark | **Dairy products** |
| BC171B | B. cereus 172560W | Mozzarella | |
| BC194C | B. cereus Rock1 15 | Ice cream | |
| BC209C | B. cereus ATCC 10876 | Sheep's milk cheese | |
| BC221A | B. cereus 172560W | Caciotta | |
| BC223B | B. cereus 172560W | Mozzarella | |
| BC224B | B. cereus 172560W | Mozzarella | |
| BC226A | B. cereus CI | Mozzarella | |
| BC238B | B. cereus CI | Caciocavallo | |
| BC245A | B. cereus F | Caciocavallo | |
| BC263A | B. cereus F | Mozzarella | |
| BC290A | B. cereus F | Mozzarella | |
| BC293A | B. cereus E33L | Sheep's milk cure cheese | |
| BC151A | B. cereus 172560W | Stretched cheese | |
| BC246A | B. cereus 172560W | Caciocavallo | |
| BC254A | B. cereus CI | Mozzarella | |
| BC258A | B. cereus Rock1_15 | Scamorza | |
| BC266A | B. cereus 172560W | Caciocavallo | |
| BC281A | B. cereus F | Bulk milk | |
| BC287A | B. cereus ATCC10987 | Mozzarella | |
| BC294A | B. cereus AH187 | Mozzarella | |
| BC384A | B. cereus AH187 | Pistachio ice cream | |
| BC391A | B. cereus Rock1_15 | Cream and chocolate ice cream | |
| BC331B | B. cereus F | Carosello | |
| BC335A | B. cereus 172560W | Cabbage | |
| BC348A | B. cereus AH187 | Carosello | |
| BC355A | B. cereus 172560W | Green beans | |
| BC357B | B. cereus AH187 | Melon | **Fruit and vegetables** |
| BC359A | B. cereus 03BB102 | Salad | |
| BC429A | B. cereus _F | Truffle | |
| BC317C | B. cereus 172560W | Chicory | |
| BC313A | B. cereus 172560W | Beans | |

| ID | Strain | Food | Category |
|---|---|---|---|
| BC329A | B. cereus 172560W | Fennel | Fish (green) |
| BC330A | B. cereus E33L | Salad | |
| BC425A | B. cereus ATCC_10876 | Panettone | Bakery products |
| BC398C | B. cereus E33L | Cookies | |
| BC400A | B. cereus 172560W | Cookies | |
| BC407A | B. cereus 03BB102 | Cookies | |
| BC407C | B. cereus CI | Cookies | |
| BC160B | B. cereus CI | Soft wheat flour | |
| BC161A | B. cereus m1293 | Soft wheat flour | |
| BC416A | B. cereus AH187 | Sea bass | Fish |
| BC195A | B. cereus AH187 | Mixed seafood | |
| BC55A | B. cereus m1293 | Anchovies in olive oil | |
| BC25B | B. cereus 172560W | Fresh sausage | Meat |
| BC70A | B. cereus ATCC 10876 | Beef | |
| BC414B | B. cereus AH187 | Russian salad | Mixed products |
| BC179A | B. cereus 172560W | Focaccia with scamorza | |
| BC187A | B. cereus 172560W | Sandwich with cured meat | |
| BC1A | B. thuringensis T13001 | Mozzarella | Dairy products |
| BC8B | B. thuringensis  BGSC 4AW1 | Raw cow's milk | |
| BC8D | B. thuringensis  BGSC 4CC1 | Raw cow's milk | |
| BC77A | B. thuringensis T03a001 | Butter | |
| BC147A | B. thuringensis  YBT 020 | Milk ice cream | |
| BC264B | B. thuringensis 97 27 | Mozzarella | |
| BC2A | B. thuringensis T13001 | Mozzarella | |
| BC4D | B. thuringensis T13001 | Buffalo Mozzarella | |
| BC23B | B. thuringensis T13001 | Mozzarella | |
| BC81B | B. thuringensis T13001 | Mozzarella | |
| BC83B | B. thuringensis T13001 | Mozzarella | |
| BC124B | B. thuringensis T03a001 | Primo sale cheese | |
| BC234A | B. thuringensis T03a001 | Mozzarella | |
| BC262A | B. thuringensis BGSC 4Y1 | Mozzarella | |
| BC312B | B. thuringensis T13001 | Ricotta | |
| BC282A | B. thuringiensis YBT_020 | Mozzarella | |
| BC211A | B. thuringensis HD 29 | Rocket | Fruit and vegetables |
| BC324A | B. thuringiensis BGSC_4BD1 | Artichokes | |
| BC337A | B. thuringiensis BGSC_4BD1 | Artichokes | |
| BC398A | B. thuringiensis T13001 | Cookies | Bakery products |
| BC404A | B. thuringiensis T13001 | Cookies | |
| BC140A | B. thuringensis  BGSC 4Y1 | Swordfish with olives | Fish |
| BC92B | B. thuringensis HD 29 | Sausage | Meat |
| BC1B | B. wiedmannii  FSL W8 0169 | Mozzarella | Dairy products |
| BC4E | B. wiedmannii FSL W8 0169 | Buffalo Mozzarella | |
| BC36A | B. wiedmannii FSL W8 0169 | Caciocavallo | |
| BC130C | B. wiedmannii FSL W8 0169 | Mozzarella | |
| BC131A | B. wiedmannii FSL W8 0169 | Mozzarella | |
| BC183A | B. wiedmannii FSL W8 0169 | Ricotta | |
| BC204A | B. wiedmannii FSL W8 0169 | Scamorza | |
| BC222A | B. wiedmannii FSL W8 0169 | Mozzarella | |
| BC239A | B. wiedmannii FSL W8 0169 | Mozzarella | |
| BC259A | B. wiedmannii FSL W8 0169 | Ricotta | |
| BC93B | B. wiedmannii FSL W8 0169 | Mozzarella | |
| BC278A | B. wiedmannii FSL W8 0169 | Mozzarella | |
| BC286A | B. wiedmannii FSL W8 0169 | Mozzarella | |
| BC321A | B. wiedmannii FSL W8 0169 | Lettuce | Fruit and vegetables |
| BC399A | B. wiedmannii FSL W8 0169 | Wholemeal biscuits | Bakery products |
| BC243A | B. wiedmannii FSL W8 0169 | Cream horn | |
| BC390A | B. wiedmannii FSL W8 0169 | Surimi | Fish |

| | | | |
|---|---|---|---|
| *BC150A* | *B. wiedmannii FSL W8 0169* | Sausage | **Meat** |
| *BC375A* | *B. wiedmannii FSL W8 0169* | Ravioli | **Mixed products** |
| *BC4A* | *B. toyonensis BCT7112* | Buffalo Mozzarella | **Dairy products** |
| *BC127A* | *B. toyonensis BCT7112* | Mozzarella | |
| *BC275A* | *B. toyonensis BCT7112* | Mozzarella | |
| *BC320A* | *B. toyonensis BCT7112* | Rocket | **Fruit and vegetables** |
| *BC334A* | *B. toyonensis BCT7112* | Salad | |
| *BC212B* | *B. toyonensis BCT7112* | Mixed salad | |
| *BC423A* | *B. toyonensis BCT7112* | Almond sweet | **Bakery products** |
| *BC78A* | *B. weihenstephanensis KBAB4* | Mozzarella | **Dairy products** |