2. Allele variants of amylase inhibitor amino acid sequence in studied potato lines and varieties

| Sample | Allele |  | 9 |  |  |  |  |  |  |  |  |  |  |  | 748 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Krepysh 1 | ${ }^{\text {Al }}$ | A | F |  |  |  |  |  |  | M |  | T | F | N | V G |  |  | A R |  | M | N | S L | L V |  |  |  | N M |  |  |  |  |  |
| Krepysh 2 |  | A |  |  |  | v |  | v |  | M |  |  |  |  |  |  |  | G |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lyubava 1 | A3 | A | F | L |  | v |  | V | T | M | S | T |  | N | G | T | A | A $R$ |  | M | N | S L | L | s |  | F | N M |  | M A | A |  | S T |
| Lyubava 2 | A4 | A | F | L |  | v | N | v | T | v | S | T |  | N | G |  | A | A $R$ | T | M | S | S L | L V | 5 |  | F | N M |  | M A | A | v | S $T$ |
| Lyubava 3 |  | A | F |  |  | v |  | v |  | M |  |  |  |  | G |  | A | A R |  | M | N | S L | L V |  |  |  | M |  |  |  |  |  |
| Meteor 1 |  | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meteor 2 | A7 | A | F | L | 1 | v |  | v | T | M | s |  |  |  | G |  | A | A | T | M | N | s | L V | s |  | F | N M |  | M A | A | v | S T |
| Zhisuleskkii 1 | A8 | A | F |  | 1 | v |  | v | T | M |  |  | F |  | N G |  | A |  |  | M | N | S L |  |  |  |  |  |  |  |  |  | S T |
| Zhigulevskii 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Favorit 2 | A10 | A | F | L | 1 | v |  | , | T | M | S | T | F | N | G | T | A | A | T | M | N | s | L V | s |  | F | N M |  | M A | A | v |  |
| Favorit 1 | Al1 | A | F | L |  | v |  | v | T | M |  |  |  |  | G |  |  | R | T | M | N | s | L | s |  |  | N M |  | M A | A | v | S $T$ |
| Velikan 1 |  | A | F |  |  | v |  |  |  | M |  |  |  |  |  |  |  | A R |  |  | N | S L |  |  |  |  |  |  |  |  |  |  |
| Fioletovi 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fioletovy 2 | A14 | A | F |  | 1 | v |  | v | T | M | s |  |  | , | , |  |  | A R |  | M | N | s | L V | s |  | F | N M |  | M A | A | v |  |
| Fioletovyi 3 | A15 | A | F |  |  | v |  | v | T | M |  | T | F |  |  |  | A | A R |  | M | N | s |  |  |  |  |  |  |  | A |  | P ${ }^{\text {P }}$ |
| Vympel 1 |  |  |  |  |  | v |  |  |  | M |  |  |  |  |  |  |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| Kolobok 1 | A17 | A | F | L | 1 | v | N | v | T | M | s | T | F | N | G | T | A | A |  | 1 | N | s |  | s |  | F | N M |  | M A | A |  | S 1 |
| Kolobok 2 | A18 | A | F |  | 1 | v | N | v | T | M | S |  | F |  | G |  | A | A R | T | M | N | s | L V | S |  | F | N M |  | M A | A | v | S $T$ |
| Vasilek 1 | A19 | A | F |  |  | A |  | $v$ | T | M |  |  | F |  | G |  | P A |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| Vasilek 2 |  |  |  |  |  | v |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gulliver 1 | A21 | A | F |  | 1 | v |  | $\checkmark$ | T | M | S |  |  | N | G |  | A | A |  | M | s | s | L V | s |  |  | N M |  | M A | A |  |  |
| Gulliver 2 | A22 | A | F |  |  | A |  | v | T | M |  | T | F |  |  |  | A | A R | T | M |  | s | L V |  |  |  |  |  |  |  |  |  |
| Fritella 1 | A23 | A |  |  |  | v |  |  |  | M |  |  |  |  | G |  |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| Fritella 2 | A24 | A |  |  |  | v |  |  |  | M |  |  |  |  | G |  |  |  |  | M | N | S L |  |  |  |  |  |  |  |  |  |  |
| Golubizna 1 | A25 | A | F |  | 1 | v |  | v | T | M |  |  | F | N | G |  | A | A R | T | M | N | S L | L V | 5 |  |  | N M |  | M A | A |  | S 1 |
| Golubizna 2 | ${ }^{\text {A26 }}$ | A | F |  |  | v |  | V |  | M | T |  |  |  |  |  |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| Golubizna 3 | A27 |  |  |  |  | v |  |  |  | M |  |  |  |  | G |  |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| Lyuks 1 | A28 | A | F |  | 1 | V |  | v | T | M | S | T | F |  | G | T | A | A |  | M | N | s | L | s |  | F | N M |  | M A | A |  | S 1 |
| Lyuks 2 | A29 | A | F |  |  | v | N | v | T | M | s |  | F |  | G |  | A | A $R$ |  | M | N | S L | L V |  |  |  | N M |  |  | A |  |  |
| Lyuks 3 | A30 | A |  |  |  | v |  | v | T | M | S |  |  |  | G |  |  | A R |  | M | N |  |  |  |  |  |  |  |  |  |  |  |
| Start 1 | 431 |  |  |  |  | V |  |  |  | M |  |  |  |  |  |  |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| Start 2 | A32 | A | F | L |  | v |  | v | T | M | S |  |  |  | G |  | A | A R |  | M | S | s |  | s |  |  | N M |  | M A | A |  |  |
| Start 3 | A33 | D | F |  |  | v |  | v | T | M |  |  |  |  | G |  | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bravo 1 | A34 |  |  |  |  | v |  |  | T | M |  |  |  |  | G |  |  |  |  | M | N |  |  |  |  |  |  |  |  |  |  |  |
| Bravo 2 | A35 | A |  |  |  | v |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gornyak 1 | A36 | A | F |  |  | v |  | v | T | M | s | T | F |  | G | T | A | A R |  | M | N | S L |  | s |  |  | D M |  |  |  |  | S T |
| Gornyak 2 | A37 | A |  |  |  | v |  | V | T | M | s | T | F |  | G |  |  | , |  | M | - | s |  |  |  |  |  |  |  |  |  |  |
| Irbitskii 1 | A38 |  |  |  |  | , |  |  |  | M |  |  |  |  |  |  |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| Irbitskii 2 | A39 | A | F | L | 1 | v | N | $v$ | T | M | 5 |  | F |  | G | T | A | A R |  | M | N | s |  |  |  |  | N M |  |  |  |  |  |
| Kortni 1 | A40 | A | F |  |  | v | N | v | T | M |  |  |  |  | G | T | A | A $R$ |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| 3-43-2 1 | ${ }^{441}$ | A |  |  |  | v |  |  |  | M |  |  |  |  | G |  |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| 3-43-2 2 | A42 | A |  |  |  | v |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3-43-61 | A43 | A | F |  |  | v |  |  | T | M | s |  | F |  | G | T | A | A R | T | M | N | S L |  | s |  |  | N M |  |  |  |  |  |
| 3-43-6 2 | A44 | A | F |  |  | v |  |  |  | M |  |  |  |  |  |  |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| Sambo 1 | A45 |  |  |  |  | , |  |  |  | M |  |  |  |  | G |  |  |  |  | M | s | S | L |  |  |  |  |  |  |  |  |  |
| Gala 1 | A46 | A | 1 |  | 1 | v | N | v | T | M | S | T | F |  | G | T | A | A R |  |  | S | S L | L V | R |  | F | N M |  | M A | A | v |  |
| Gala 2 | A47 | A | F |  |  | v |  | v | T | M | s |  | F |  | G |  |  | A $R$ |  | M | s | S L | L V |  |  |  |  |  | M A |  |  |  |
| Impala 1 | A48 | A |  |  |  | v |  | v |  | M |  |  |  |  | G |  | P A |  |  | M | N | ${ }^{\text {L }}$ |  |  |  |  |  |  |  |  |  |  |
| Impala 2 | A49 |  |  |  |  | v |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Red Skarlet 1 | A50 | A | F |  |  | v |  |  | T | M | S |  |  |  | G | T | A | A R |  | M | N | S L |  |  |  |  | N M |  |  |  |  |  |
| Red Skarlet 2 | A51 | A | F |  |  | v |  | v |  | M |  |  |  |  |  |  |  |  |  | M |  |  |  |  |  |  |  |  |  |  |  |  |
| Nevskii 1 | A52 | A | F |  |  | v |  |  | T | M |  |  |  |  | G |  |  |  |  | M | N | Y H | H V |  |  |  |  |  |  |  |  |  |
| Nevskii 2 | ${ }^{453}$ | A |  |  |  | v |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | S $T$ |
| Matushka 1 | A54 | A |  |  |  | v |  |  | T | M | s |  |  |  | G | T | A | A R |  | M | N | S L | L V |  |  |  | N M |  |  |  |  |  |
| Ruskii suvenir 1 | A55 | A | F | L | 1 | v | N | v | T | M | S | T | F |  | G | T | P A | R |  | M | N | S L | L V | s |  | F | N M |  | M A | A $R$ |  |  |
| Russkii suvenir 2 | A56 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Arlekin 1 | A57 | A | F |  |  | V |  |  | T | M | S |  |  |  | G |  | A | A R |  | M | N | S L |  |  |  |  | N M |  | M A | A | v |  |
| Arrekin 2 | A58 | A | F |  |  | v |  | v |  | M |  |  |  |  | G |  |  | A R |  | M | N | S L | L V | S |  |  | M |  | M A |  |  |  |
| Babushka 1 | A59 | A | F |  |  | v |  | v |  | M |  | T |  |  | G |  | P A | A R |  | M | N |  |  |  |  |  |  |  |  |  |  |  |
| Babushka 2 | A60 |  |  |  |  | $v_{v}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | F |  |  |  |  |  |  |
| Kuznechanka 1 | ${ }^{\text {A61 }}$ | A | F |  |  | v |  | v | T | M | S |  |  |  | G | T |  | A R |  | M | ${ }^{\mathrm{N}}$ | S L | L V |  |  |  | N M |  | M A |  |  |  |
| Kuznechanka 2 | A62 |  |  |  |  | v |  | v | T | M | s |  | F |  | G |  | A | A R |  | M | N | S L | L V | s |  |  | N M |  | M A | A R |  | S T |
| Kuznechanka 3 | 463 |  |  |  |  | v |  |  |  | M |  |  |  |  |  |  |  |  |  |  | N |  |  |  |  |  |  |  |  |  |  |  |
| Kemerovchanin 1 | A64 | A | F |  | 1 | v | N |  | T | M | S |  |  |  | G | T | A | A R |  | M | N | S L | L V |  |  | F | M |  | M A | A |  |  |
| Tanai 1 | ${ }^{465}$ | A | F |  |  | v |  | v | T | M | S |  |  |  | G |  |  | R |  | M | N | S L | L V | S |  | F | M |  | M A | A |  | S T |
| Sarovskii 1 | A66 | A |  |  |  | v |  | , |  | M |  |  |  |  | G |  |  | R |  |  | N |  |  |  |  |  | N M |  | $\checkmark$ A |  |  |  |
| Sarovskii 2 | A67 | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sudarynya 1 | 468 | A | F |  |  | v |  |  |  | M |  |  |  | N | G |  | P A | A R |  | M | , |  | L V |  |  | F | M |  | M A | A |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Sample |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Krepysh 1 | A1 |  |  |  |  |  | A |  | P | S | M | M S | S |  | A |  |  |  |  |  | G R |  |  |  | G L |  |  |  |  |
| Krepysh 2 | A2 | E | A | A | S | T | A |  | P | S | M |  | S A | P | A |  | v |  |  |  | G R |  |  | N | G L | L A | G |  |  |
| Lyubava 1 |  | E | A |  |  |  |  |  |  |  | M |  |  |  |  |  | T V |  |  |  | G |  |  |  | G |  |  |  |  |
| Lyubava 2 | A4 | E | v | v |  |  |  |  |  |  |  |  |  |  | A D |  |  |  |  |  | G |  |  |  | G |  |  |  |  |
| Lyubava 3 | As | E | E V | v | S | T | A |  | P | S | M | M S | S A | P | A | D | v | P |  | + ${ }^{\text {s }}$ | G R | R |  | N | G L | L A | G | A | M |
| Meteor 1 |  | E | E A | A | S |  |  |  |  |  |  |  | S A |  |  |  | T A |  |  |  | G |  |  |  | G L |  |  |  |  |
| Meteor 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Zhigulevskii 1 | A8 | E | v | $v$ | S | $T$ | A | T | P | S | T M |  | A |  | A | D | V |  |  | , | G R |  |  | - | G L | L A | G | A F | M |
| Zhigulevskii 2 |  | E | E A | A | S | T | A |  |  |  |  |  | S A |  | A |  |  |  |  |  | G R |  |  | N | G L | L | G | A |  |
| Favorit 2 | A10 | E | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  | P |  |  |  |  |
| Favorit 1 | Al1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Velikan 1 | Al2 | E | A | A | S | T | A | T | P | S |  |  | A |  | A | D |  |  |  | , s | G |  |  | V | G L | L A | G | A 1 | M |
| Fioletovi 1 | A13 | E | A | A | S | T |  |  |  |  |  |  | S A |  |  |  |  |  |  |  | G |  |  | N P | G L |  |  |  |  |
| Fioletovi 2 | A14 | E |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  | G |  |  |  |  |
| Fioletoryi 3 | A15 | E | A | A | S | T | A | T | P | S |  |  | A | P | A | D |  |  |  | $\checkmark$ S | G |  |  | N P | G | A | F G | A | M |
| Vympel 1 | A16 | E | A | A | S | T | A | T | P | S | M | M S | S A | P | A | D | v |  |  | S | G | R |  | - | G L | L A | G | A |  |
| Kolobok 1 | A17 | E | A | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  | G L |  |  |  |  |
| Kolobok 2 | A18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | A |  |
| Vasilek 1 | A19 | E | A | A | S | T | A | T | P | S | T M |  | s |  | A |  |  |  |  | $\checkmark$ s | G |  |  | N P | G |  |  |  |  |
| Vasilek 2 | A20 | E | A | A | S | T | A | T | P | S | M |  | s |  | A | D | v |  |  | , s | G | R |  | $\mathrm{N}^{\text {P }}$ | G L | L V |  |  |  |
| Gulliver 1 | ${ }^{421}$ |  | A | A |  |  |  |  | P |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  | G |  |  |  |  |
| Gulliver 2 | A22 | E | A | A |  | T | A |  | P |  |  |  |  |  | A |  |  |  |  |  | G |  |  | $\mathrm{N}^{\text {P }}$ | G |  | F G | A |  |
| Fritella 1 | ${ }^{\text {A23 }}$ | V | A | A | S | A |  | T | P | S | M | M S | S A | P | A | D | V |  | N | N s | D | H P |  | N | G L | L V | L - |  |  |
| Fritella 2 | ${ }^{424}$ | E | A | A | S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Golubizna 1 | A25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Golubizna 2 | A26 | E | A | A | S | A | A | T | P |  |  | - | S A | P | A | D |  |  | N |  | D |  |  | $\mathrm{N}^{\text {P }}$ | G | L |  |  |  |
| Golubizna 3 | A27 | E | E A | A | S | A | A | T | P |  |  |  | S A |  | A | D |  |  |  |  | D | R |  |  | G L |  |  |  |  |
| Lyuks 1 | A28 | E | A | A | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  |  |
| Lyuks 2 | A29 | E | A | A |  |  |  |  |  | S |  |  |  |  | A | D |  |  |  |  | D |  |  |  | G | $v$ |  |  |  |
| Lyuks 3 | A30 | E | E A | A | N |  | A |  | P | 5 | M |  | S A | P | A | D | V |  |  | S | G | R |  | N | G | A | F G | A 1 |  |
| Start 1 | ${ }^{\text {A31 }}$ |  | A | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Start 2 | A32 |  | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Start 3 | A33 | E | A | A | S | A | A | T | R | S | M | M S | S A | P | A | D |  |  |  | , 5 | D |  |  | , | G | L V | L - |  |  |
| Bravo 1 | A34 | E | E A | A | S | A |  | T | P | S | M | M | S A |  | A | D |  |  |  |  | G | R P |  |  | G L |  | F G | A |  |
| Bravo 2 | A35 | E | A | A |  | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  |  |
| Gornyak 1 | A36 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | A |  |
| Gornyak 2 | A37 | E | E A | A P | S | A |  |  | P | s |  |  | S A |  |  |  |  |  |  |  | D |  |  | N | G L |  |  |  |  |
| Irbitskii 1 | A38 | E | A | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Irbitskii 2 | A39 |  | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  |  |
| Kortni 1 | A40 |  |  |  |  | I |  |  | P |  |  |  | S |  |  | D |  |  |  |  | G |  |  |  | G | L v |  |  |  |
| 3-43-2 1 | A41 | E | E A | A P |  | T |  |  | P | S |  |  | S A |  |  | D | A V |  |  |  | G | R P |  | N | G L |  |  |  |  |
| 3-43-2 2 | ${ }^{4} 42$ |  |  | A |  | T |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3-43-61 | A43 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D |  |  |  |  |  |  |  |  |
| 3-43-6 2 | ${ }^{444}$ | E | E A | A |  | T |  |  | P | 5 |  |  | S A |  | A |  | V |  |  |  | G R |  |  | V P | G L | L A | F G |  |  |
| Sambo 1 | A45 | E | A | A |  | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gala 1 | ${ }^{446}$ | E | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D |  |  |  | ${ }^{\text {P }}$ |  |  |  |  |
| Gala 2 | A47 |  | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G L |  |  |  |  |
| Impala 1 | A48 | E | E A | A | S | T |  |  |  | F | T M | M S | S A |  |  |  | T V |  | N | V S | D R |  |  | $\mathrm{V}^{\text {P }}$ | G V | v v |  |  |  |
| Impala 2 | A49 |  | A |  |  | T |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  |  |
| Red Skarlet 1 | A50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  | G |  |  | A |  |
| Red Skarlet 2 | A51 | E | E A |  | S | T | A | T | P | s | M | M S | S A | P | A | D | T V |  |  | N s | D | R P | P N | $\mathrm{V}^{\text {P }}$ | G L | L v | L - |  |  |
| Nevskii 1 | A52 | E | v | v | S | T | A | T |  | S | M | M T | T A | P | A | D | - |  |  | , s | G | R P |  | ${ }^{\text {d }} \mathrm{P}$ | G L | L A |  |  |  |
| Nevskii 2 | ${ }^{\text {A53 }}$ | E | v | v |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ${ }_{\text {G }}$ |  |  | ${ }^{\text {N }} \mathrm{P}$ | ${ }^{\text {P }}$ |  |  |  |  |
| Matushka 1 | A54 | E | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ${ }^{\text {d }} \mathrm{P}$ | G L |  | F G | A |  |
| Ruskii suvenir 1 | A55 | E | E A | A | S | A | A |  |  | s | T M | M S | S A |  |  | D | v |  | N | V S | D | R P |  | N | G L | L V |  |  |  |
| Russkii suvenir 2 | A56 | E | E A | A | S | A |  |  |  |  |  | M | S A |  | A | D | v |  |  |  | D |  |  | N | G L |  |  |  |  |
| Arlekin 1 | A57 | E | A | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  | ${ }^{\text {N }} \mathrm{P}$ | ${ }^{\text {P }}$ | A | F G |  |  |
| Arlekin 2 | A58 | E | E A | A | S | T | A | T | P | s | T | 1 S | S A | P | A | D | v |  |  |  | G | $R$ P | P | N | G L | L A | G | A |  |
| Babushka 1 | A59 | E | E A | A | S | T | A | T | P | s | M | M S | S $T$ |  | A | D | T V |  |  |  | G R | R P |  | N | $\mathrm{G}^{\text {L }}$ | L V |  |  |  |
| Babushka 2 | 460 | E | A | A | S | T | A | T | P | s |  |  |  |  | A | D |  |  | N | , | G |  |  | N | G L |  | G |  |  |
| Kuznechanka 1 | 461 | E | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  |  | G L |  | G |  |  |
| Kuznechanka 2 | A62 | E | A | A | S | T | A |  |  | S | - | M | S A |  | A |  | T V |  |  |  | G | R S |  | N | G L | L A | G | A |  |
| Kuznechanka 3 | ${ }^{463}$ | E | A | A | S | T | A |  |  |  |  | M | A |  | A | D |  |  |  |  | G | R S |  | $\mathrm{N}^{\text {N }}$ | G L |  | G | A |  |
| Kemerovchanin 1 | A64 | E | A | A |  | T | A |  |  |  |  |  |  |  |  | D |  |  |  |  | G |  |  | N P | G L |  | F G |  |  |
| Tanai 1 | A65 | E | E A | A | S | T | A | T | P |  |  |  |  |  |  |  |  |  |  |  |  |  |  | , | G L |  | F ${ }^{\text {G }}$ |  |  |
| Sarovskii 1 | A66 | E | A | A | S | T | A |  |  | 5 | A M | M | s |  | A | D |  |  |  | , s | G |  |  | N | ${ }^{\text {G }}$ | L V | L - |  |  |
| Sarovskii 2 | A67 | E | A | A | S | T | A | T | P | S | M | M S | S 1 | P | A | D |  |  |  | , S | ${ }^{\text {G }}$ |  |  | v | S L | L A | G |  |  |
| Sudarynya 1 | A68 | E |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G |  |  | $\mathrm{N}^{\text {P }}$ | G L |  | G |  |  |
| Utro 1 | A69 |  | v |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | G | - | N | N P | G L |  |  |  |  |
| ot e . The numbers in variety name indicate allele variant number. The variable amino acid sites are highlighted with green, whereas radical ones are highlighted with dark green. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

