

Table S5. Number of *cis*-acting elements in the promoter regions of the GmCPA genes.

| Group | Name | GeneID | light responsive element | development - related element | stress - responsive element | MeJA - responsive element | ABA - responsive element | SA- responsive element | auxin- responsive element | gibberellin -responsive element |
|-------|---------|-----------------|--------------------------------|-------------------------------------|-----------------------------------|---------------------------------|--------------------------------|------------------------------|---------------------------------|---------------------------------------|
| NHXIa | GmNHX2a | Glyma.20G229900 | 9 | 0 | 3 | 4 | 3 | 0 | 0 | 0 |
| | GmNHX2b | Glyma.10G158700 | 13 | 2 | 0 | 0 | 2 | 1 | 1 | 0 |
| | GmNHX2d | Glyma.03G243000 | 11 | 1 | 8 | 0 | 1 | 0 | 1 | 0 |
| | GmNHX2e | Glyma.19G240500 | 15 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| | GmNHX2f | Glyma.07G251900 | 18 | 3 | 1 | 6 | 2 | 0 | 0 | 1 |
| | GmNHX2c | Glyma.17G022500 | 15 | 3 | 4 | 0 | 3 | 0 | 0 | 0 |
| | GmNHX3 | Glyma.08G324200 | 17 | 0 | 3 | 4 | 3 | 1 | 2 | 0 |
| NHXIb | GmNHX5a | Glyma.15G124100 | 14 | 0 | 5 | 0 | 1 | 0 | 1 | 0 |
| | GmNHX5b | Glyma.09G018200 | 15 | 0 | 4 | 4 | 3 | 0 | 0 | 0 |
| | GmNHX5c | Glyma.07G270400 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 1 |
| NHXII | GmNHX7 | Glyma.08G092000 | 14 | 2 | 3 | 4 | 0 | 1 | 0 | 0 |
| KEAI | GmKEA1a | Glyma.03G014000 | 10 | 1 | 4 | 0 | 0 | 1 | 1 | 0 |
| | GmKEA1b | Glyma.07G073700 | 13 | 0 | 2 | 2 | 0 | 0 | 1 | 1 |
| | GmKEA2a | Glyma.18G230100 | 11 | 2 | 6 | 0 | 2 | 1 | 0 | 0 |
| | GmKEA2b | Glyma.09G262000 | 16 | 2 | 4 | 0 | 3 | 3 | 0 | 0 |
| | GmKEA3a | Glyma.07G184800 | 18 | 3 | 6 | 0 | 2 | 0 | 0 | 1 |
| | GmKEA3b | Glyma.08G064600 | 15 | 2 | 1 | 2 | 0 | 0 | 1 | 0 |
| KEAII | GmKEA4a | Glyma.05G222500 | 9 | 1 | 5 | 0 | 2 | 0 | 0 | 0 |
| | GmKEA4b | Glyma.08G029300 | 19 | 0 | 1 | 0 | 2 | 0 | 0 | 0 |
| | GmKEA4c | Glyma.17G229700 | 19 | 1 | 2 | 2 | 0 | 0 | 1 | 0 |
| | GmKEA4d | Glyma.14G093900 | 19 | 0 | 4 | 2 | 0 | 1 | 1 | 0 |
| | GmKEA5a | Glyma.09G152300 | 22 | 2 | 2 | 2 | 4 | 0 | 0 | 1 |
| | GmKEA5b | Glyma.16G203200 | 13 | 1 | 0 | 0 | 4 | 1 | 0 | 3 |

| Group | Name | GeneID | light responsive element | development - related element | stress - responsive element | MeJA - responsive element | ABA - responsive element | SA- responsive element | auxin- responsive element | gibberellin -responsive element |
|--------|----------|-----------------|--------------------------------|-------------------------------------|-----------------------------------|---------------------------------|--------------------------------|------------------------------|---------------------------------|---------------------------------------|
| CHXI | GmCHX1 | Glyma.12G241200 | 12 | 3 | 4 | 2 | 3 | 1 | 0 | 0 |
| | GmCHX28a | Glyma.12G008100 | 16 | 3 | 6 | 0 | 1 | 1 | 0 | 1 |
| | GmCHX28c | Glyma.09G228400 | 12 | 1 | 3 | 2 | 0 | 1 | 1 | 0 |
| | GmCHX28b | Glyma.10G089900 | 24 | 2 | 1 | 0 | 0 | 1 | 2 | 0 |
| CHXV | GmCHX25a | Glyma.18G057400 | 18 | 2 | 4 | 2 | 2 | 0 | 1 | 2 |
| | GmCHX25b | Glyma.11G164200 | 14 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| CHXIII | GmCHX29a | Glyma.11G234000 | 13 | 1 | 2 | 2 | 3 | 1 | 0 | 2 |
| | GmCHX29b | Glyma.18G023000 | 17 | 0 | 3 | 2 | 4 | 0 | 0 | 3 |
| | GmCHX30a | Glyma.14G200000 | 18 | 1 | 5 | 2 | 0 | 0 | 0 | 0 |
| | GmCHX30b | Glyma.14G200100 | 8 | 2 | 1 | 2 | 0 | 0 | 2 | 0 |
| CHXII | GmCHX3a | Glyma.05G153700 | 5 | 1 | 5 | 0 | 1 | 1 | 0 | 3 |
| | GmCHX3b | Glyma.18G001600 | 10 | 0 | 6 | 2 | 1 | 1 | 0 | 1 |
| | GmCHX3c | Glyma.02G218800 | 11 | 0 | 5 | 0 | 0 | 1 | 0 | 0 |
| | GmCHX4e | Glyma.20G045400 | 11 | 1 | 4 | 0 | 0 | 1 | 0 | 1 |
| | GmCHX4d | Glyma.14G037800 | 20 | 2 | 3 | 2 | 3 | 1 | 0 | 0 |
| | GmCHX4c | Glyma.14G037600 | 21 | 2 | 4 | 0 | 2 | 0 | 0 | 0 |
| | GmCHX4b | Glyma.14G037700 | 11 | 3 | 3 | 2 | 2 | 2 | 1 | 0 |
| | GmCHX4a | Glyma.09G128600 | 16 | 2 | 5 | 0 | 2 | 0 | 1 | 1 |
| CHXIII | GmCHX32 | Glyma.18G056800 | 15 | 0 | 4 | 2 | 1 | 0 | 0 | 0 |
| | GmCHX14a | Glyma.18G056900 | 10 | 2 | 7 | 0 | 0 | 0 | 4 | 1 |
| | GmCHX14b | Glyma.11G163600 | 12 | 3 | 1 | 4 | 1 | 0 | 0 | 0 |
| | GmCHX31a | Glyma.18G023700 | 10 | 1 | 2 | 2 | 3 | 0 | 0 | 1 |
| | GmCHX31b | Glyma.18G023800 | 17 | 2 | 2 | 4 | 1 | 2 | 0 | 0 |

| Group | Name | GeneID | light responsive element | development - related element | stress - responsive element | MeJA - responsive element | ABA - responsive element | SA- responsive element | auxin- responsive element | gibberellin -responsive element |
|--------|-----------|-----------------|--------------------------------|-------------------------------------|-----------------------------------|---------------------------------|--------------------------------|------------------------------|---------------------------------|---------------------------------------|
| CHXIVc | GmCHX20b2 | Glyma.03G171700 | 8 | 3 | 4 | 4 | 0 | 1 | 0 | 0 |
| | GmCHX20a | Glyma.03G171500 | 12 | 3 | 2 | 6 | 3 | 0 | 1 | 0 |
| | GmCHX20b1 | Glyma.03G171600 | 12 | 0 | 2 | 2 | 0 | 0 | 0 | 0 |
| | GmCHX20c | Glyma.13G131200 | 13 | 3 | 4 | 2 | 4 | 1 | 0 | 1 |
| CHXIVb | GmCHX18a | Glyma.01G223600 | 19 | 1 | 3 | 0 | 3 | 0 | 0 | 1 |
| | GmCHX18b | Glyma.11G019900 | 20 | 1 | 1 | 2 | 1 | 0 | 0 | 0 |
| | GmCHX19a | Glyma.13G081300 | 13 | 4 | 3 | 0 | 6 | 0 | 0 | 0 |
| | GmCHX19b | Glyma.17G043400 | 17 | 1 | 2 | 2 | 4 | 0 | 1 | 1 |
| | GmCHX19c | Glyma.13G116400 | 17 | 2 | 4 | 2 | 7 | 2 | 1 | 0 |
| CHXIVa | GmCHX15a | Glyma.04G212200 | 15 | 0 | 2 | 2 | 3 | 0 | 1 | 0 |
| | GmCHX15b | Glyma.06G154200 | 13 | 2 | 7 | 2 | 7 | 0 | 2 | 2 |
| | GmCHX15d | Glyma.05G192400 | 18 | 3 | 1 | 0 | 3 | 0 | 1 | 0 |
| | GmCHX15c | Glyma.15G066300 | 20 | 3 | 7 | 0 | 5 | 0 | 1 | 1 |
| CHXIVd | GmCHX22a | Glyma.03G233700 | 14 | 0 | 6 | 0 | 2 | 0 | 0 | 1 |
| | GmCHX22h | Glyma.19G230900 | 14 | 1 | 3 | 0 | 1 | 0 | 0 | 1 |
| | GmCHX22d | Glyma.08G057800 | 15 | 2 | 2 | 6 | 5 | 0 | 1 | 2 |
| | GmCHX22e | Glyma.10G131500 | 10 | 1 | 0 | 4 | 0 | 1 | 0 | 2 |
| | GmCHX22b | Glyma.04G187400 | 19 | 4 | 5 | 0 | 8 | 0 | 1 | 0 |
| | GmCHX22c | Glyma.06G178500 | 7 | 1 | 4 | 8 | 2 | 0 | 0 | 0 |
| | GmCHX22f | Glyma.11G229400 | 13 | 3 | 2 | 0 | 0 | 2 | 0 | 0 |
| | GmCHX22g | Glyma.18G027900 | 14 | 0 | 2 | 2 | 2 | 1 | 1 | 0 |
| | GmCHX23 | Glyma.16G039700 | 16 | 0 | 5 | 2 | 3 | 1 | 1 | 1 |