### TABLE S1

**Infection types (IT)** to stem rust race TMLK and **Phl gene genotypes** of 93 BC₁F₁ plants from backcross of **RL6082 (Sr39)** with **Chinese Spring (CS)** **ph1b** mutant.

<table>
<thead>
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<th>Plant No</th>
<th>Source</th>
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<th>IT</th>
<th>Phl genotype</th>
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* Source: 08A50 and 08A52 are CS ph1bph1b and F1 hybrid (CS ph1bph1b/RL6082) plants, respectively.