Organ Direction Ing1-1D Ing2-1 Ing1-3 Ing2-1 Col-0 Ing1-3 Leaf blade length (mm) Width 11.2±1.5 (52) 8.0±1.3 (59)\* 11.0±2.2 (79) 11.9±1.5 (34) 11.4±1.3 (44) 30.7±3.8 (59)\* Lenath 21.5±3.4 (52) 18.3±4.9 (79)\* 17.9±3.1 (34)\* 15.0±2.0 (44)\*

Table S1. Measurements of the wild type (Col-0), and the Ing1-3, Ing2-1 and Ing1-3 Ing2-1 mutant phenotypes

\*Compared with the wild type, level of significance was 5% (paired Student's t-test).

Leaf petiole length (mm) 12.6±1.5 (12) 15.0±1.9 (26)\* 12.2±1.3 (21) 12.6±1.4 (15) 8.0±1.7 (15)\* Stem length (cm) 20.8±2.2 (25) 21.1±2.4 (28)\* 21.4±3.4 (32) 21.5±5.2 (15) 17.8±3.5 (37)\* Internode diameter (µm) 746.3±98.0 (5) 557.7±48.9 (6)\* 747.4±95.3 (5) 788.4±109.4 (6) 1201.0±77.5 (6)\* 3.1±0.4 (106) 3.5±0.6 (79)\* 3.1±0.7 (41) 2.9±0.4 (60)\*

Hypocotyl length (mm) 2.7±0.4 (57)\* Silique length (mm) 9.5±0.7 (20) 14.4±1.3 (20)\* 9.0±0.5 (20)\* 7.9±0.8 (20)\* 5.7±0.4 (20)\* Seed (µm) Width 258.0±24.5 (35) 242.7±27.7 (35)\* 261.7±17.6 (45) 270.3±18.1 (45)\* 244.4±22.3 (35)\*

421.8±29.1 (35) 501.0±32.0 (35)\* 429.5±24.7 (45) 437.3±34.1 (45) Length 25.0±6.8 (32) 23.0±9.5 (17) 24.7±6.2 (47) 22.2±2.5 (23)

sucrose on 0.8% plant agar. Root growth was measured in 10-day-old vertically grown seedlings. Number of plants examined is given in parentheses, Results are given ±s.d.

365.1±31.1 (35)\* Root length (mm) 19.6±7.7 (27)\*

Leaf blade. whole leaf. internode diameter and silique measurements were taken 39 days after seeds were sown. Stem length was measured at day 50. Internode diameter was

measured in 39-day-old shoots in the first internode of type-two metamer. Hypocotyl and petiole lengths were measured 11 days after seeds were sown in 1/2 MS medium without