**SUPPLEMENTARY TABLE 1. Mean and range of starch physicochemical properties measured in two environments.**



**SUPPLEMENTARY TABLE 2. Summary of 25 markers derived from starch biosynthesis related genes used in the association analysis.**



**SUPPLEMENTARY TABLE 3. Polymorphism of *Waxy* and *SSIIa* markers in the USDA rice mini-core accessions.1**

**Supplementary Table 3** Cont. 

**Supplementary Table 3** Cont.

1Accession No. = accession number. Accession No. is as designated by Agrama et al. (2010).

**SUPPLEMENTARY TABLE 4. Mean and range of AAC related traits in rice accessions of five (CT)n classes.**



Different letters in the same column indicate significance at *P* < 0.05.

**SUPPLEMENTARY TABLE 5. Variance of AAC explained by *Waxy* RM 190, different SNPs and their combinations in different sample groups.**



1 Admix, *accessions with mixed ancestry*; AUS, *aus*; IND, *indica*; JAP, *japonica*.

2 SNP combinations include the 23 bp InDel in exon 2.

\*,\*\*,\*\*\*,\*\*\*\* indicate significance at *P* < 0.05, 0.01, 0.001, and 0.0001 respectively.