

Chr. No: Position	Allele	Gene ID	Gene	HAP-Block	No. of Haplotypes	Trait
(A) Haplotypes of abiotic stress tolerance genes						
1 33191558-33191558	G/A	OS01G0719100	OsRZFP34	20	3	Stomata opening, enhanced leaf cooling (Hsu et al. 2014)
1 33399815-33399815	G/A	OS01G0723400	OsNADP-ME2	20	3	Salt and osmotic stress tolerance (Liu et al. 2007)
2 3199200-3199200	A/T	OS02G0150700	OsDHSRP1	1	3	Regulating drought, heat, salt stress tolerance (Kim et al. 2020)
4 27548687-27548687	A/G	OS04G0571200	OsSIRH2-14	22	3	Salinity tolerance (Park et al. 2019)
4 28704398-28704398	C/G	OS04G0590400	OsGRAS23	23	3	Drought stress tolerance (Xu et al. 2015)
7 869064-869064	G/A	OS07G0114400	CK2alpha2	1	5	Regulates response to phosphate level (Wang et al. 2020)
11 4065703-4065703	T/A	OS11G0183700	OsSWI3C/ OsCHB705	3	3	Drought resistance (Yang et al. 2020)
11 18223736-18223736	T/C	OS11G0572500	OsAIR2	17	4	Arsenic stress tolerance (Hwang et al. 2017)
(B) Haplotypes of biotic stress tolerance genes						
2 26879420-26879420	G/A	OS02G0629400	OsPSKR1	21	3	Resistance to bacterial leaf streaks (Yang et al. 2019)
11 18330027-18330027	C/T	OS11G0575600	OsLOX10	17	4	Blast resistance (Marla and Singh 2012)
12 8402058-8402058	T/G	OS12G0281300	Pita/Pi-4a	6	4	Blast resistance (Lee et al. 2011)
(C) Haplotypes of genes related to rice growth and development						
1 24739353-24739353	C/T	OS01G0578000	RAD51C	15	5	Reproductive development by regulating meiosis, DNA damage repair in somatic cells (Fu et al. 2020)
6 7751593-7751593	G/A	OS06G0229300	HAZ1/ HOX1a	4	4	Gibberellins response (Wen et al. 2011)

8 22249789-22249789	T/C	OS08G0432300	TIG1	24	4	Promotes cell elongation, enlarges tiller angle (Zhang et al. 2019)
9 18487117-18487117	G/T	OS09G0509300	WEG1	16	4	Root elongation, lateral root formation (Lucob-Agustin et al. 2020)
(D) Haplotypes of yield enhancing genes						
1 39293476-39293476	A/T	OS01G0836600	OsABCG3	25	3	Pollen development (Chang et al. 2018)
6 18550938-18550938	A/G	OS06G0498800	OsMFT1	12	3	Increases spikelet per panicle, delays heading date (Song et al. 2018)

Table 3: Haplotypes of genes related to (A) Abiotic stress tolerance, (B) Biotic stress tolerance, (C) Growth and development, (D) Grain yield in rice landraces