

Table S4. Annotation description of five gene groups based on GO analysis

Groups	Biological Process	Glyma 1.1 ID	Annotation Description
I	phytohormones regulation	Glyma19g36660, 36761, 36771, 36781, 36820, 36990, 37000, 37520, 37540, 37570, 37910, 38060, 38140.	response to auxin stimulus/abscisic acid/ethylene; indoleacetic acid biosynthetic.
II	metabolic process	Glyma19g36840, 36850, 36860, 36910, 36970, 36990, 37000, 37310, 37410, 37450, 37750, 37810, 37820, 37830, 37870, 37930, 37940, 37031, 37116.	polyamine/nuclear-transcribed mRNA/glycine/protein/fatty acid/methylglyoxal catabolic process; glycerol ether/ one-carbon/hydrogen peroxide/carbohydrate/lipid/ brassinosteroid metabolic process.
III	protein phosphorylation	Glyma19g36900, 37290, 37430, 37570, 37770, 37940.	protein polymerization.
IV	cellular process	Glyma19g36710, 36720, 36820, 36990, 37060, 37250, 37480, 37540, 37570, 37600, 37610, 37680, 37770, 37890, 38150, 36791.	cell differentiation; cell proliferation; cell size; multicellular organism reproduction; cell growth; meiosis; cell division; cell cycle process.
V	organ morphogenesis	Glyma19g36700, 36710, 36820, 36990, 37380, 37530, 37570, 37660, 37740, 38150, 37910, 37750, 37870, 37890, 37010, 37410.	Regulation of plant-type hypersensitive response; seedling development; root/stamen/embryo development; leaf/flower morphogenesis; plant-type cell wall organization; regulation of meristem growth