

**Figure S6**

>HvUGT (HORVU1Hr1G020560)

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>AT5G49690

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>AT2G22590

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>AT5G65550

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>AT5G26310

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>AT2G18570

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>AT2G18560

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>AT4G01070

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>AT4G34131  
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>AT1G01420

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>AT2G29740

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>AT2G15490

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>AT1G07260

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>AT1G07250

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>AT3G21790

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>AT3G21800

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>AT4G15260

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>AT2G29710

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>AT4G34135

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>AT4G27560

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>AT1G01390

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>AT4G15280

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D\*

>AT3G21780

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>AT1G07240

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>AT3G16520

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>AT2G29750

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>AT3G46670

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>AT3G21750

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>AT2G22930

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>AT3G53160

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>AT2G36760

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>AT2G43840

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>AT2G36780

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>AT2G31790

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>AT3G46660

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>AT1G05680

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>AT2G43820

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VTKNIS\*

>AT2G36770

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>AT5G38040

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>AT1G64910

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>AT1G51210

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ARARAKEMG\*

>AT1G05675

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>AT5G03490

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>AT3G29630

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>AT1G78270

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>AT5G59590

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>AT5G59580

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>AT1G73880

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>AT3G46700

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>AT3G55710

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>AT3G46650

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>AT2G31750

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>AT5G38010

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>AT5G54060

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>AT2G36800

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>AT1G64920

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>AT3G53150

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>AT4G09500

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>AT5G17050

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>AT5G14860

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>AT2G36970

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>AT5G12890

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>AT1G22360

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>AT1G50580

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>AT5G05870

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>AT1G22380

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>AT3G22250

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>AT1G05560

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>AT1G05530

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>AT4G15480

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>AT5G17030

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>AT3G46690

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>AT3G55700

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>AT2G30150

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>AT2G30140

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>AT2G36790

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>AT1G22370

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>AT2G26480

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>AT5G17040

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>AT1G30530

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>AT5G05880

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>AT2G28080

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>AT3G21560

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>AT5G05860

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>AT1G22340

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>AT4G14090

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>AT1G24100

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>AT4G15500

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>AT3G46720

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>AT4G15490

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>AT3G02100

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>AT1G06000

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>AT5G37950

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>AT2G23260

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>AT5G05890

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KIVKWAPQQDVLKHRAIGGFLTHNGWSSTVESVCEAVPMICLPFRWDQMLNA  
RFVSDVWMVGINLEDRVERNEIEGAIRLLVEPEGEAIRERIEHLKEKVGRSFQ  
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>AT1G10400

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SLSGTKATIVDVPFPDNVPEIPPGVECTDKLPALSSSLFVPFTRATKSMQADFER  
ELMSLPRVSFMVSDGFLWWTQESARKLGFPRLVFFGMNCASTVICDSVFQNNQ  
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QSQGIIFNTFDDLEPVFIDFYKRKRKLLKLVAVGPLCYVNNFLDDEVEEKVKPS  
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NEIGKGFEEVGERGMMVRDEWVDQRKILEHESVRGFLSHCGWNSLTESICS  
EVPILAFPLAAEQPLNAILVVEELRVAERVVAASEGVVRRREEIAEKVKELMEGE  
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>AT2G23250

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AAAHNIPCAILWIQACGAFSVYYRYMKTNPFPDLEDLNQTVELPALPLLEVR  
DLPSLMLPSQGANVNTLMAEFADCLKDVKWVLVNSFYELESEIIESMSDLKPII  
PIGPLVSPFLGNDDEKTLDMWKVDDYCMEWLDKQARSSVYISFGSILKSLE  
NQVETIATALKNRGVPFLWVIRPKEKGENVQVLQEMVKEGKGVVTEWGQQE  
KILSHMAISCFITHCGWNSTIETVVTGVPVAYPTWIDQPLDARLLVDVFGIGV  
RMKND AIDGELKVAEVERCIEAVTEGPAAADMRRRATELKHAARSAMSPGGS  
SAQNLD SFISDIPIT\*

>AT4G15550

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ETLTELIEDNRKQNRPFCTCVVYTILLTWVAELAREFHLP SALLWVQPVTVFSIF  
YHYFNGYEDAISEMANTPSSSIKLP SPLLLTVRDIPSFIVSSNVYAFLLP AFREQI  
DSLKEEINPKILINTFQELEPEAMSSVPDNFKIVPVGPLLTLRTDFSSRGEYIEWL  
DTKADSSVLYVSFGTLAVLSKKQLVELCKALIQSRRPFLWVITDKSYRNKEDE  
QEKEEDCISSFREELDEIGMVVSWCDQFRVLNHR SIGCFVTHCGWNSTLES LV  
SGVPVVAFPQWNDQMMNAKLEDCWKTGVRVMEKKEEEGVVVVDSEEIRR  
CIEEVMEDKAEEFRGNATRWKDLAAEAVREGGSSFNHLKAFVDEHM\*

>AT5G05900

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SCLIDDSGWIFTQPVAQSFNLPRLVLNTYKVSFFRDHFVLPQLRREMYLPLQDS  
EQGDDPVEEFPLRKKDLLQILDQEQSEQLDSYSNMILETTKASSGLIFVSTCEE  
LDQDLSQAREDYQVPIFTIGPSHSYFPGSSSLFTVDETCIPWLDKQEDKSVIY

VSFGSISTIGEAEFMEIAWALRNSDQPFLWVVRGGSVVHGAEWIEQLHEKGKI  
VNWAPQQEVLKHQAIGGFLTHNGWNSTVESVFEGVPMICMPFVWDQLLNAR  
FVSDVWMVGLHLEGRIERNVIEGMIRRLFSETEGKAIRERMEILKENVGRSVK  
PKGSAYRSLQHLIDYITYF\*