

Supplementary Table 3. KEGG pathways of loci under selection among each comparison population of Schizothora

Population	ID	Description	GeneRatio	BgRatio	pvalue
dagu vs milin	ko04740	Olfactory transduction	2/2	93/8136	0.000129271
zangga vs linzhi	ko05146	Amoebiasis	2/4	127/8136	0.001421078
zangga vs linzhi	ko05226	Gastric cancer	2/4	206/8136	0.003701462
bomi vs zangga	ko00260	Glycine, serine and threonine metabolism	1/1	42/8136	0.005162242
dagu vs zangga	ko00260	Glycine, serine and threonine metabolism	1/1	42/8136	0.005162242
zangmu vs zangga	ko05146	Amoebiasis	2/9	127/8136	0.008100578
bomi vs zangmu	ko04913	Ovarian steroidogenesis	1/1	85/8136	0.010447394
bomi vs zangmu	ko04213	Longevity regulating pathway - multiple species	1/1	91/8136	0.011184857
bomi vs linzhi	ko03460	Fanconi anemia pathway	1/2	46/8136	0.011276493
dagu vs linzhi	ko03460	Fanconi anemia pathway	1/2	46/8136	0.011276493
zangga vs linzhi	ko03460	Fanconi anemia pathway	1/2	46/8136	0.011276493
jiacha vs milin	ko04740	Olfactory transduction	1/1	93/8136	0.011430678
jiacha vs milin	ko04740	Olfactory transduction	1/1	93/8136	0.011430678
zangmu vs milin	ko04740	Olfactory transduction	1/1	93/8136	0.011430678
zangmu vs linzhi	ko04740	Olfactory transduction	1/1	93/8136	0.011430678
zangga vs milin	ko04740	Olfactory transduction	1/1	93/8136	0.011430678
bomi vs zangmu	ko05214	Glioma	1/1	100/8136	0.012291052
bomi vs zangmu	ko04730	Long-term depression	1/1	114/8136	0.014011799
bomi vs zangmu	ko05218	Melanoma	1/1	114/8136	0.014011799
bomi vs zangmu	ko04914	Progesterone-mediated oocyte maturation	1/1	116/8136	0.01425762
bomi vs zangmu	ko04211	Longevity regulating pathway	1/1	122/8136	0.014995084
bomi vs zangmu	ko01521	EGFR tyrosine kinase inhibitor resistance	1/1	124/8136	0.015240905
bomi vs zangmu	ko05215	Prostate cancer	1/1	126/8136	0.015486726
bomi vs zangmu	ko01522	Endocrine resistance	1/1	130/8136	0.015978368
bomi vs zangmu	ko04114	Oocyte meiosis	1/1	134/8136	0.01647001
bomi vs zangmu	ko04520	Adherens junction	1/1	135/8136	0.01659292
zangmu vs milin	ko01523	Antifolate resistance	1/3	46/8136	0.016867995
bomi vs zangmu	ko04066	HIF-1 signaling pathway	1/1	145/8136	0.017822026
bomi vs zangmu	ko04152	AMPK signaling pathway	1/1	152/8136	0.018682399
zangmu vs milin	ko02010	ABC transporters	1/3	54/8136	0.019782056
zangmu vs zangga	ko05226	Gastric cancer	2/9	206/8136	0.020427405
bomi vs zangmu	ko04068	FoxO signaling pathway	1/1	168/8136	0.020648968
dagu vs milin	ko04923	Regulation of lipolysis in adipocytes	1/2	90/8136	0.022002872
bomi vs mili	ko01523	Antifolate resistance	1/4	46/8136	0.02242856
zangga vs linzhi	ko03460	Fanconi anemia pathway	1/4	46/8136	0.02242856
bomi vs zangmu	ko04140	Autophagy - animal	1/1	189/8136	0.023230088

bomi vs zangmu	ko04550	Signaling pathways regulating pluripotency of stem cells	1/1	195/8136	0.023967552
jiacha vs zangga	ko04550	Signaling pathways regulating pluripotency of stem cells	1/1	195/8136	0.023967552
zangmu vs zangga	ko04550	Signaling pathways regulating pluripotency of stem cells	1/1	195/8136	0.023967552
bomi vs zangmu	ko04150	mTOR signaling pathway	1/1	202/8136	0.024827925
bomi vs zangmu	ko05224	Breast cancer	1/1	209/8136	0.025688299
bomi vs mili	ko02010	ABC transporters	1/4	54/8136	0.026290327
bomi vs zangmu	ko05225	Hepatocellular carcinoma	1/1	214/8136	0.026302852
dagu vs milin	ko04730	Long-term depression	1/2	114/8136	0.027828967
dagu vs milin	ko04970	Salivary secretion	1/2	114/8136	0.027828967
zangmu vs milin	ko01524	Platinum drug resistance	1/3	81/8136	0.029574491
bomi vs zangmu	ko05202	Transcriptional misregulation in cancer	1/1	247/8136	0.030358899
bomi vs linzhi	ko05146	Amoebiasis	1/2	127/8136	0.030977501
dagu vs linzhi	ko05146	Amoebiasis	1/2	127/8136	0.030977501
zangga vs linzhi	ko05146	Amoebiasis	1/2	127/8136	0.030977501
milin vs linzhi	ko04740	Olfactory transduction	1/3	93/8136	0.033905668
zangmu vs milin	ko04740	Olfactory transduction	1/3	93/8136	0.033905668
bomi vs zangmu	ko04510	Focal adhesion	1/1	276/8136	0.033923304
dagu vs milin	ko04540	Gap junction	1/2	145/8136	0.035328578
dagu vs zangga	ko00260	Glycine, serine and threonine metabolism	1/7	42/8136	0.035593783
jiacha vs zangga	ko00260	Glycine, serine and threonine metabolism	1/7	42/8136	0.035593783
zangga vs milin	ko00260	Glycine, serine and threonine metabolism	1/7	42/8136	0.035593783
bomi vs zangmu	ko05205	Proteoglycans in cancer	1/1	291/8136	0.035766962
dagu vs zangga	ko04215	Apoptosis - multiple species	1/7	44/8136	0.037261276
jiacha vs zangga	ko04215	Apoptosis - multiple species	1/7	44/8136	0.037261276
bomi vs zangmu	ko04014	Ras signaling pathway	1/1	309/8136	0.037979351
jiacha vs zangga	ko03460	Fanconi anemia pathway	1/7	46/8136	0.038926296
zangga vs milin	ko03460	Fanconi anemia pathway	1/7	46/8136	0.038926296
bomi vs zangmu	ko04015	Rap1 signaling pathway	1/1	317/8136	0.038962635
bomi vs mili	ko01524	Platinum drug resistance	1/4	81/8136	0.039239371
bomi vs zangmu	ko04144	Endocytosis	1/1	329/8136	0.040437561
dagu vs zangga	ko00513	Various types of N-glycan biosynthesis	1/7	48/8136	0.040588848
dagu vs milin	ko04611	Platelet activation	1/2	180/8136	0.04376098
dagu vs milin	ko04713	Circadian entrainment	1/2	182/8136	0.044241714
bomi vs mili	ko04740	Olfactory transduction	1/4	93/8136	0.044952855
zangga vs linzhi	ko04740	Olfactory transduction	1/4	93/8136	0.044952855
zangmu vs zangga	ko00260	Glycine, serine and threonine metabolism	1/9	42/8136	0.045534219
zangmu vs zangga	ko04215	Apoptosis - multiple species	1/9	44/8136	0.047655778
zangmu vs milin	ko04976	Bile secretion	1/3	133/8136	0.048249817

dagu vs zangga	ko00510	N-Glycan biosynthesis	1/7	58/8136	0.048864679
dagu vs milin	ko04270	Vascular smooth muscle contraction	1/2	203/8136	0.049282118
zangmu vs zangga	ko03460	Fanconi anemia pathway	1/9	46/8136	0.049773143
bomi vs linzhi	ko05226	Gastric cancer	1/2	206/8136	0.050001088
dagu vs linzhi	ko05226	Gastric cancer	1/2	206/8136	0.050001088
zangga vs linzhi	ko05226	Gastric cancer	1/2	206/8136	0.050001088
bomi vs zangmu	ko04010	MAPK signaling pathway	1/1	431/8136	0.052974435
bomi vs zangmu	ko04151	PI3K-Akt signaling pathway	1/1	437/8136	0.053711898
dagu vs milin	ko04714	Thermogenesis	1/2	246/8136	0.059561366
dagu vs zangga	ko04742	Taste transduction	1/7	72/8136	0.060348005
jiacha vs zangga	ko04742	Taste transduction	1/7	72/8136	0.060348005
zangga vs milin	ko04742	Taste transduction	1/7	72/8136	0.060348005
dagu vs milin	ko04022	cGMP-PKG signaling pathway	1/2	252/8136	0.060991237
milin vs linzhi	ko05322	Systemic lupus erythematosus	1/3	174/8136	0.062804489
zangmu vs milin	ko05322	Systemic lupus erythematosus	1/3	174/8136	0.062804489
bomi vs mili	ko04976	Bile secretion	1/4	133/8136	0.063813911
bomi vs zangga	ko00260	Glycine, serine and threonine metabolism	1/13	42/8136	0.065115941
bomi vs zangga	ko04215	Apoptosis - multiple species	1/13	44/8136	0.068116801
bomi vs zangga	ko03460	Fanconi anemia pathway	1/13	46/8136	0.071108768
milin vs linzhi	ko04613	NA	1/3	202/8136	0.07265851
zangmu vs milin	ko04613	NA	1/3	202/8136	0.07265851
milin vs linzhi	ko05034	Alcoholism	1/3	205/8136	0.073710183
zangmu vs milin	ko05034	Alcoholism	1/3	205/8136	0.073710183
bomi vs zangga	ko00513	Various types of N-glycan biosynthesis	1/13	48/8136	0.074091866
zangmu vs zangga	ko04742	Taste transduction	1/9	72/8136	0.076920634
zangga vs milin	ko04740	Olfactory transduction	1/7	93/8136	0.077350113
bomi vs mili	ko05322	Systemic lupus erythematosus	1/4	174/8136	0.082855149
milin vs linzhi	ko05202	Transcriptional misregulation in cancer	1/3	247/8136	0.088350216
zangmu vs milin	ko05202	Transcriptional misregulation in cancer	1/3	247/8136	0.088350216
bomi vs zangga	ko00510	N-Glycan biosynthesis	1/13	58/8136	0.088875152
dagu vs zangga	ko04974	Protein digestion and absorption	1/7	112/8136	0.092505074
jiacha vs zangga	ko04974	Protein digestion and absorption	1/7	112/8136	0.092505074
zangga vs milin	ko04974	Protein digestion and absorption	1/7	112/8136	0.092505074
bomi vs mili	ko04613	NA	1/4	202/8136	0.095690968
bomi vs mili	ko05034	Alcoholism	1/4	205/8136	0.097058199
dagu vs zangga	ko01521	EGFR tyrosine kinase inhibitor resistance	1/7	124/8136	0.101966275
jiacha vs zangga	ko05146	Amoebiasis	1/7	127/8136	0.10431832
zangga vs milin	ko05146	Amoebiasis	1/7	127/8136	0.10431832

bomi vs zangga	ko04330	Notch signaling pathway	1/13	70/8136	0.106327405
bomi vs zangga	ko04742	Taste transduction	1/13	72/8136	0.109205932
milin vs linzhi	ko04014	Ras signaling pathway	1/3	309/8136	0.109678506
milin vs linzhi	ko04015	Rap1 signaling pathway	1/3	317/8136	0.112406065
bomi vs mili	ko05202	Transcriptional misregulation in cancer	1/4	247/8136	0.116037108
zangmu vs zangga	ko04974	Protein digestion and absorption	1/9	112/8136	0.117340948
dagu vs zangga	ko04550	Signaling pathways regulating pluripotency of stem cells	1/7	195/8136	0.156233553
jiacha vs zangga	ko04550	Signaling pathways regulating pluripotency of stem cells	1/7	195/8136	0.156233553
zangga vs milin	ko04550	Signaling pathways regulating pluripotency of stem cells	1/7	195/8136	0.156233553
dagu vs zangga	ko04141	Protein processing in endoplasmic reticulum	1/7	199/8136	0.159205306
dagu vs zangga	ko04210	Apoptosis	1/7	205/8136	0.163646113
jiacha vs zangga	ko04210	Apoptosis	1/7	205/8136	0.163646113
jiacha vs zangga	ko05226	Gastric cancer	1/7	206/8136	0.16438429
zangga vs milin	ko05226	Gastric cancer	1/7	206/8136	0.16438429
bomi vs zangga	ko04974	Protein digestion and absorption	1/13	112/8136	0.16500944
bomi vs zangga	ko01521	EGFR tyrosine kinase inhibitor resistance	1/13	124/8136	0.181110121
bomi vs zangga	ko04658	Th1 and Th2 cell differentiation	1/13	125/8136	0.182438824
bomi vs zangga	ko05146	Amoebiasis	1/13	127/8136	0.185090262
bomi vs zangga	ko04110	Cell cycle	1/13	135/8136	0.195616836
zangmu vs zangga	ko04550	Signaling pathways regulating pluripotency of stem cells	1/9	195/8136	0.196231313
zangmu vs zangga	ko04210	Apoptosis	1/9	205/8136	0.205299688
dagu vs zangga	ko04514	Cell adhesion molecules	1/7	267/8136	0.208370113
jiacha vs zangga	ko04514	Cell adhesion molecules	1/7	267/8136	0.208370113
zangga vs milin	ko04514	Cell adhesion molecules	1/7	267/8136	0.208370113
bomi vs zangga	ko04722	Neurotrophin signaling pathway	1/13	160/8136	0.227708845
bomi vs zangga	ko04910	Insulin signaling pathway	1/13	173/8136	0.243925596
zangmu vs zangga	ko04514	Cell adhesion molecules	1/9	267/8136	0.259521933
bomi vs zangga	ko04550	Signaling pathways regulating pluripotency of stem cells	1/13	195/8136	0.270655048
bomi vs zangga	ko04141	Protein processing in endoplasmic reticulum	1/13	199/8136	0.275420195
bomi vs zangga	ko04210	Apoptosis	1/13	205/8136	0.282514056
bomi vs zangga	ko05226	Gastric cancer	1/13	206/8136	0.283690114
bomi vs zangga	ko04514	Cell adhesion molecules	1/13	267/8136	0.352155987
bomi vs zangga	ko05165	Human papillomavirus infection	1/13	417/8136	0.495656824

< o'connori

GeneID
Soc_16G0006340/Soc_19G0002040
Soc_20G0005830/Soc_20G0005900
Soc_20G0005830/Soc_20G0005900
Soc_14G0000910
Soc_14G0000910
Soc_20G0005830/Soc_20G0005900
Soc_3G0009700
Soc_3G0009700
Soc_20G0005860
Soc_20G0005860
Soc_20G0005860
Soc_16G0006340
Soc_16G0006340
Soc_16G0006340
Soc_16G0006340
Soc_16G0006340
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_3G0009700
Soc_17G0007270
Soc_3G0009700
Soc_3G0009700
Soc_17G0007270
Soc_20G0005830/Soc_20G0005900
Soc_3G0009700
Soc_19G0002040
Soc_17G0007270
Soc_20G0005860
Soc_3G0009700

Soc_3G0009700
Soc_14G0000300
Soc_14G0000300
Soc_3G0009700
Soc_3G0009700
Soc_17G0007270
Soc_3G0009700
Soc_19G0002040
Soc_19G0002040
Soc_17G0007270
Soc_3G0009700
Soc_20G0005900
Soc_20G0005900
Soc_20G0005900
Soc_16G0006340
Soc_16G0006340
Soc_3G0009700
Soc_19G0002040
Soc_14G0000910
Soc_14G0000910
Soc_14G0000910
Soc_3G0009700
Soc_16G0007700
Soc_16G0007700
Soc_3G0009700
Soc_20G0005860
Soc_20G0005860
Soc_3G0009700
Soc_17G0007270
Soc_3G0009700
Soc_U0000420
Soc_19G0002040
Soc_19G0002040
Soc_16G0006340
Soc_16G0006340
Soc_14G0000910
Soc_16G0007700
Soc_17G0007270

Soc_U0000420
Soc_19G0002040
Soc_20G0005860
Soc_20G0005900
Soc_20G0005900
Soc_20G0005900
Soc_3G0009700
Soc_3G0009700
Soc_19G0002040
Soc_14G0000040
Soc_14G0000040
Soc_14G0000040
Soc_19G0002040
Soc_20G0000330
Soc_20G0000330
Soc_17G0007270
Soc_14G0000910
Soc_16G0007700
Soc_20G0005860
Soc_20G0000330
Soc_20G0000330
Soc_20G0000330
Soc_20G0000330
Soc_U0000420
Soc_14G0000040
Soc_16G0006340
Soc_20G0000330
Soc_20G0000330
Soc_20G0000330
Soc_U0000420
Soc_14G0000040
Soc_14G0000040
Soc_14G0000040
Soc_20G0000330
Soc_20G0000330
Soc_16G0007750
Soc_20G0005900
Soc_20G0005900

Soc_16G0006720
Soc_14G0000040
Soc_2G0017770
Soc_2G0017770
Soc_20G0000330
Soc_14G0000040
Soc_14G0000300
Soc_14G0000300
Soc_14G0000300
Soc_U0000420
Soc_16G0007700
Soc_16G0007700
Soc_20G0005900
Soc_20G0005900
Soc_14G0000040
Soc_16G0007750
Soc_16G0006720
Soc_20G0005900
Soc_16G0006880
Soc_14G0000300
Soc_16G0007700
Soc_14G0000750
Soc_14G0000750
Soc_14G0000750
Soc_16G0007220
Soc_16G0007220
Soc_14G0000750
Soc_14G0000300
Soc_U0000420
Soc_16G0007700
Soc_20G0005900
Soc_14G0000750
Soc_16G0006720