

Table S3 The genotype data of F_{2:3} lines from Xinong 822/Lanhangxuan 121 used in QTL mapping

	2BS									3BS								5BS							
	0	8.9	10	14	14	17	22	0		15	23	32	54	0	5.2	5.9	13	14	34	34	35	40			
	AX-	AX-	AX-	AX-	AX-	AX-	AX-	AX-	AQP	AX-	AX-	AX-	AX-	AX-	AX-	AX-	AX-	AX-	AX-	AX-	AX-	AX-			
	109	111	861	111	110	111	111	109	-TM	110	110	109	109	111	109	894	110	861	110	110	110	111			
	915	764	743	622	909	140	023	990		421	587	526	310	699	431	591	578	782	049	459	578	557			
	345	854	19	432	599	388	848	245		157	489	890	028	590	968	27	940	60	418	969	028	664			
	31	41	42	51	54	58	69	0.3		9.4	14	20	40	14	18	21	31	35	64	70	88	406			
LHX001	H	H	H	H	H	H	H	H	X	B	B	H	H	H	H	H	H	H	H	H	H	H			
LHX003	H	H	H	H	H	H	H	H	C	H	H	H	H	B	H	H	H	H	A	A	A	A			
LHX004	H	H	H	H	H	H	H	H	C	H	H	X	H	H	H	H	H	H	A	A	A	A			
LHX005	B	B	B	B	B	H	H	H	C	H	H	H	H	H	H	H	H	H	H	H	H	H			
LHX006	H	H	H	H	H	H	H	H	C	B	H	H	A	B	B	B	B	B	A	A	A	A			
LHX007	H	H	H	H	H	H	H	A	A	A	A	A	A	A	A	A	A	A	H	H	H	H			
LHX008	B	B	B	B	B	B	B	H	C	B	B	B	B	B	B	B	B	X	B	B	B	B			
LHX009	A	A	A	A	A	A	A	H	C	B	B	H	A	H	H	H	H	H	A	A	A	A			
LHX010	A	A	A	A	A	A	A	A	A	A	A	A	H	A	A	A	A	A	A	A	A	A			
LHX011	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B			
LHX012	H	B	B	B	B	B	B	H	C	B	B	B	B	A	A	A	H	H	H	H	H	H			
LHX013	A	A	A	A	A	A	H	H	C	H	H	H	H	A	A	A	A	A	A	A	A	A			
LHX015	B	B	B	B	B	B	B	H	C	H	A	A	A	A	A	A	A	A	H	H	H	H			
LHX016	A	A	A	A	A	A	A	H	C	H	H	H	H	H	H	H	H	H	H	H	H	H			
LHX017	H	H	H	H	H	H	H	H	X	H	B	H	H	B	B	B	B	B	B	B	B	B			
LHX018	H	H	H	H	H	H	H	H	C	H	H	A	A	B	B	B	B	B	B	B	B	B			
LHX019	H	H	H	H	H	H	H	H	C	H	H	H	H	A	A	A	A	A	A	A	A	A			
LHX020	H	B	B	B	B	B	B	H	C	H	H	H	H	H	H	H	B	B	B	B	B	B			
LHX021	H	B	B	B	B	B	H	H	C	H	A	A	A	B	B	B	H	H	H	H	H	H			
LHX022	H	H	H	H	H	H	H	H	C	H	H	H	H	H	H	H	H	H	H	H	H	B			
LHX023	A	A	A	A	A	A	A	H	C	H	H	H	H	B	B	B	B	B	H	H	H	H			
LHX024	B	A	A	A	A	A	H	A	A	H	H	H	H	A	A	A	A	A	A	A	A	A			
LHX025	A	A	A	A	A	A	A	H	C	B	X	B	B	A	A	A	A	A	A	A	A	A			
LHX026	A	H	H	H	H	H	H	H	C	H	A	A	A	A	A	A	A	A	H	H	H	H			
LHX027	H	H	H	H	H	H	H	A	A	A	A	A	H	H	H	H	B	B	H	H	H	H			
LHX028	B	B	B	B	B	B	H	H	C	B	B	H	H	H	H	H	H	H	H	H	H	B			
LHX029	H	H	H	H	H	H	H	H	C	H	H	H	H	A	A	A	A	A	A	A	A	H			
LHX030	H	H	H	H	H	H	H	H	C	H	H	H	H	H	H	H	H	H	H	H	H	H			
LHX031	H	H	H	H	H	H	H	B	C	B	B	B	H	A	A	A	A	A	A	A	A	A			
LHX032	A	A	A	H	H	H	H	H	C	B	B	B	B	B	B	B	B	B	B	B	B	B			
LHX033	H	H	H	H	H	H	H	H	C	H	H	H	H	A	A	A	A	A	H	H	H	H			
LHX034	A	A	A	A	A	A	H	H	C	H	H	H	H	B	H	H	H	H	H	H	H	H			
LHX035	A	A	A	A	A	A	H	H	C	B	B	B	B	H	H	H	H	H	H	H	H	H			
LHX036	H	H	H	H	H	A	A	B	C	B	B	H	H	A	A	A	A	A	H	H	H	H			
LHX037	H	H	H	H	H	H	H	A	A	A	H	H	H	B	B	B	B	B	B	B	B	B			
LHX038	A	A	A	A	A	A	A	B	C	B	B	B	B	B	B	B	B	B	B	B	B	B			
LHX039	H	H	H	H	H	H	H	A	C	H	H	H	A	H	A	A	A	A	H	H	H	H			
LHX040	H	H	H	H	H	H	H	A	A	H	H	H	H	H	H	H	H	H	H	H	H	H			
LHX041	H	B	B	B	B	B	B	H	C	H	H	H	B	H	H	H	A	A	A	A	A	A			
LHX042	H	H	H	H	H	H	H	A	A	A	A	A	H	H	H	H	H	H	H	H	H	H			
LHX043	H	H	H	H	H	H	H	H	C	B	B	B	B	B	B	B	B	B	B	B	B	B			
LHX044	H	H	H	H	H	H	H	H	X	H	H	X	B	H	H	H	H	H	A	A	A	A			
LHX045	B	B	B	B	B	B	B	B	C	B	B	B	B	B	B	B	B	B	H	H	H	H			
LHX046	H	H	H	H	H	H	H	H	C	H	B	B	B	H	H	H	H	H	A	A	A	A			

LHX047	B	B	B	B	B	B	H	H	C	B	B	B	A	H	H	H	H	H	H	H	H	H
LHX048	H	H	H	H	H	H	H	H	C	H	H	A	A	A	A	A	X	A	H	H	H	H
LHX049	H	H	H	H	H	H	H	H	C	H	H	H	H	B	B	B	B	B	B	B	B	B
LHX050	H	B	B	B	B	B	B	H	C	H	H	H	H	B	B	B	B	B	B	B	B	B
LHX051	H	H	H	H	H	H	H	H	C	H	H	H	H	B	B	B	H	H	H	H	H	H
LHX052	H	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	H	H	B	B
LHX053	A	A	A	A	A	A	H	H	C	H	H	H	B	H	H	H	H	H	H	H	H	H
LHX054	H	H	H	H	H	H	H	H	C	B	B	B	H	B	B	B	B	B	B	B	B	B
LHX055	B	B	B	B	B	B	B	H	C	B	B	B	H	H	B	B	B	B	H	H	H	H
LHX056	H	H	H	H	H	H	B	B	C	B	H	H	H	H	H	X	A	A	A	A	A	A
LHX057	B	B	B	B	B	B	B	A	A	A	H	H	X	H	X	B	X	X	B	B	B	B
LHX058	H	H	H	H	H	H	H	H	C	H	H	H	B	H	A	A	A	A	A	A	A	A
LHX059	H	H	H	H	H	H	H	H	C	H	H	H	B	H	A	A	A	A	A	A	A	A
LHX060	H	H	H	H	H	H	H	A	A	A	A	A	A	H	H	H	H	H	H	H	H	H
LHX061	B	B	B	B	B	B	B	H	C	H	H	H	H	H	H	H	H	A	A	A	A	A
LHX062	H	H	H	H	H	H	H	H	C	B	B	B	B	H	H	H	H	H	H	H	H	H
LHX063	B	B	B	B	B	B	H	A	A	A	A	H	H	H	H	H	H	H	H	H	H	H
LHX064	H	A	A	A	A	A	A	H	C	H	H	H	H	A	A	A	A	A	A	A	A	A
LHX065	B	B	B	B	B	B	B	X	A	A	A	A	A	H	H	H	H	H	H	H	H	H
LHX066	A	A	A	A	A	A	H	H	C	H	H	H	H	H	H	H	B	B	B	H	H	H
LHX067	A	A	A	A	A	A	A	H	C	H	A	H	H	H	H	H	H	H	H	H	H	H
LHX068	H	H	H	H	H	H	H	H	C	H	H	H	H	H	A	A	A	A	A	A	A	A
LHX069	H	B	B	B	B	B	H	H	C	H	H	A	A	B	B	B	H	H	A	A	A	A
LHX070	H	H	H	H	H	H	H	A	A	A	A	A	A	B	B	B	B	B	H	H	H	H
LHX071	B	B	B	B	B	H	H	B	C	B	B	H	H	A	A	A	A	A	H	H	H	H
LHX072	A	A	A	A	A	A	A	A	C	H	H	H	H	B	B	B	B	B	B	B	B	B
LHX073	B	B	B	B	B	B	B	H	C	X	B	B	B	H	H	H	A	A	A	A	A	A
LHX074	H	H	H	H	H	H	H	H	C	H	H	H	H	H	H	H	H	H	B	B	B	B
LHX075	B	B	B	B	B	B	B	H	C	H	B	B	B	A	A	A	H	H	H	H	H	H
LHX077	H	H	H	H	H	A	A	B	C	B	B	H	H	H	H	H	B	B	B	B	H	H
LHX078	H	H	H	H	H	H	H	H	C	B	B	H	H	A	H	H	H	H	H	H	H	H
LHX079	H	H	H	H	H	H	H	A	C	A	A	A	A	H	H	H	H	H	H	H	H	B
LHX080	H	H	H	B	B	H	H	H	C	H	H	A	H	A	A	A	A	A	A	A	A	A
LHX081	H	H	H	H	H	H	H	H	X	H	H	H	B	A	A	A	H	H	H	H	H	H
LHX082	B	B	B	B	B	B	H	H	C	H	H	H	A	H	H	H	H	H	A	A	A	A
LHX083	B	B	B	H	H	H	H	H	C	H	H	H	H	H	X	X	X	B	H	X	X	X
LHX084	A	A	A	H	H	H	H	H	C	H	H	H	H	H	H	H	A	A	A	A	A	A
LHX085	H	H	H	H	H	H	H	B	C	B	H	H	H	H	H	H	H	H	H	H	H	H
LHX086	B	B	B	B	B	B	B	A	X	A	A	A	H	A	A	A	A	A	A	A	A	A
LHX087	A	A	A	A	A	A	A	H	C	A	A	A	A	H	H	H	H	H	B	B	B	H
LHX088	A	A	A	A	A	H	H	B	C	B	B	B	H	H	H	H	H	X	H	H	H	H
LHX089	B	B	B	B	B	B	B	A	A	A	H	H	H	B	B	B	H	H	A	A	A	A
LHX090	B	B	B	B	B	H	H	H	C	B	B	H	H	H	H	H	H	H	H	H	H	H
LHX091	A	A	A	A	A	A	A	H	C	H	H	A	A	H	H	H	H	H	H	H	H	H
LHX092	B	B	B	B	B	B	B	H	C	H	H	H	H	H	H	H	H	H	A	A	A	A
LHX093	B	B	B	B	B	B	B	B	C	B	B	B	B	B	B	B	B	H	H	H	H	H
LHX094	H	H	H	H	H	H	H	A	A	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX095	B	B	B	A	A	A	X	A	A	H	H	H	H	B	X	X	A	A	A	X	X	X
LHX096	H	H	H	B	B	B	B	A	A	A	A	A	A	H	H	H	H	H	H	H	H	H
LHX097	H	H	H	A	A	A	A	H	C	B	B	H	H	B	B	B	B	B	H	H	H	H
LHX098	H	A	A	A	A	H	X	H	C	H	X	H	H	H	H	X	X	H	B	B	B	B
LHX099	B	B	B	B	B	B	B	B	C	B	B	B	H	B	B	B	B	B	H	H	H	B

LHX100	H	A	A	A	A	H	H	A	A	A	A	A	H	A	A	A	A	A	A	A	A	A
LHX101	A	H	H	H	H	H	H	H	C	H	H	H	H	A	H	H	H	H	B	B	B	B
LHX102	H	H	H	H	H	H	H	H	C	H	B	B	B	A	A	A	A	A	H	H	H	H
LHX103	B	B	H	H	H	H	H	B	C	B	B	B	B	B	B	B	B	B	B	B	B	B
LHX104	A	A	A	A	A	A	A	B	C	B	B	X	B	A	A	A	H	H	B	B	B	B
LHX105	A	A	A	A	A	A	H	B	C	B	B	B	B	H	H	H	H	H	H	H	H	H
LHX106	H	H	H	H	H	H	H	H	C	H	H	H	H	H	H	H	H	H	B	B	B	B
LHX107	B	B	B	B	B	X	X	H	C	H	X	H	X	X	X	B	B	B	B	B	B	X
LHX108	A	A	A	A	A	A	A	H	C	H	H	A	A	H	H	H	H	H	B	B	B	B
LHX109	H	A	A	A	A	A	A	H	C	B	B	H	H	A	A	A	A	A	A	A	A	A
LHX110	B	B	B	B	B	B	B	H	C	H	H	H	B	H	H	H	H	H	H	H	H	H
LHX111	B	B	B	B	B	B	B	B	C	B	B	H	B	A	A	A	A	A	A	A	A	A
LHX112	B	B	H	H	H	H	X	H	A	A	A	H	H	H	H	X	X	H	H	H	H	H
LHX113	H	H	H	H	H	H	H	X	A	A	A	H	H	B	B	B	B	B	B	B	B	B
LHX114	B	B	B	B	B	B	B	B	C	B	B	B	H	A	H	H	H	H	H	H	H	H
LHX115	B	B	B	B	B	B	B	H	C	B	B	B	B	H	H	H	H	H	H	H	H	H
LHX116	B	B	B	B	B	B	B	H	C	H	H	H	H	B	B	B	B	B	B	B	B	B
LHX117	H	H	H	H	H	H	H	B	C	B	B	B	H	B	B	B	B	B	H	H	H	H
LHX118	H	H	H	H	H	H	H	H	C	H	H	B	H	H	H	H	A	A	A	A	A	A
LHX119	B	B	B	B	B	B	B	B	C	B	B	B	B	B	B	B	B	B	B	B	B	B
LHX120	H	H	H	H	H	H	H	A	A	A	A	A	A	A	A	A	A	A	H	H	H	H
LHX121	B	B	A	A	A	A	A	H	A	H	H	H	X	A	X	X	X	X	X	X	X	X
LHX122	H	H	H	H	H	H	H	H	C	B	B	B	H	A	A	A	A	A	A	A	A	A
LHX123	B	H	H	H	H	H	H	A	C	A	A	A	A	A	A	A	A	A	A	A	A	A
LHX124	H	H	H	H	H	H	H	B	C	B	B	B	H	B	B	B	B	B	B	B	B	B
LHX125	H	H	H	H	H	H	H	B	C	B	B	B	B	H	H	H	B	B	B	B	B	B
LHX126	H	H	H	H	H	H	H	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
LHX127	H	H	H	H	H	H	H	H	C	B	B	B	H	A	H	H	H	H	H	H	H	A
LHX128	H	H	H	H	H	H	H	H	C	H	H	A	A	H	H	H	H	H	B	B	B	B
LHX129	B	B	B	H	H	H	X	H	C	H	H	H	X	H	H	H	H	H	A	A	A	A
LHX130	A	A	A	A	A	A	A	A	A	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX131	B	B	B	B	B	B	B	H	C	B	B	B	B	A	H	H	H	H	H	H	H	H
LHX132	B	H	H	H	H	H	H	A	A	A	A	A	H	H	H	H	H	H	H	H	H	H
LHX133	H	H	H	H	H	H	H	H	C	B	B	B	B	A	A	A	A	A	A	A	A	A
LHX134	H	H	H	H	H	H	H	H	C	H	H	H	B	H	H	H	B	B	H	H	H	H
LHX135	H	A	A	A	A	A	A	A	A	H	H	H	H	A	A	A	A	A	A	H	H	H
LHX136	H	B	B	B	B	B	B	H	C	H	H	H	H	B	B	B	B	B	B	B	B	B
LHX137	B	B	A	A	A	X	A	B	C	B	X	H	X	H	H	H	X	X	H	X	H	H
LHX139	A	A	A	A	A	A	A	H	C	H	H	H	H	B	B	B	B	B	H	H	H	H
LHX140	A	A	A	A	A	A	A	H	C	H	H	H	B	H	H	H	H	H	H	H	X	H
LHX141	H	A	A	A	A	A	A	H	C	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX142	H	H	H	H	H	H	H	H	C	H	H	H	B	A	A	A	A	A	A	A	A	A
LHX143	B	H	H	H	H	H	A	H	C	H	H	H	A	B	B	B	B	B	H	H	H	H
LHX144	B	B	B	B	B	B	B	H	C	H	H	H	A	B	B	B	B	B	H	H	H	H
LHX145	H	H	H	H	H	H	H	H	C	H	H	H	B	B	B	B	B	B	H	H	H	H
LHX146	B	B	B	B	B	B	B	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B
LHX147	B	B	B	H	H	H	H	A	A	A	X	H	X	H	X	H	X	B	B	X	A	B
LHX148	H	B	B	B	B	B	B	H	X	H	A	H	H	B	B	B	B	B	B	B	B	B
LHX149	A	A	A	A	A	A	A	A	A	A	H	H	H	H	H	H	H	H	H	H	H	H
LHX150	A	A	A	A	A	A	A	H	C	H	H	H	H	H	H	H	A	A	H	H	H	H
LHX151	H	H	H	H	H	H	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
LHX152	A	A	A	A	A	A	A	H	C	H	H	H	A	A	A	A	A	A	A	A	A	A

LHX153	B	B	B	H	H	H	H	A	A	A	H	H	X	H	H	H	H	H	H	H	H	H
LHX154	B	B	B	B	B	B	B	H	C	B	B	B	B	A	H	H	H	H	H	H	H	H
LHX155	H	H	H	H	H	H	H	H	C	H	H	H	A	B	B	B	B	B	B	B	B	B
LHX156	H	H	H	H	H	H	B	H	C	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX157	B	B	B	B	B	B	B	B	C	B	H	H	H	A	A	H	B	B	B	B	B	B
LHX158	A	A	A	A	A	A	A	H	C	H	H	H	B	A	A	A	A	A	A	A	A	A
LHX159	H	A	A	A	A	A	X	H	C	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX160	H	H	H	H	H	H	H	A	A	A	H	H	H	H	H	H	H	H	H	H	H	H
LHX161	B	B	B	B	B	X	X	B	C	H	H	H	H	B	B	H	H	H	B	B	B	B
LHX162	A	A	A	H	H	H	H	H	C	H	H	H	B	A	A	A	A	A	A	A	A	A
LHX163	H	H	H	H	H	H	H	H	C	H	H	H	B	B	B	B	B	B	B	B	B	B
LHX164	B	B	H	H	H	X	X	B	A	X	A	H	H	H	B	H	B	H	H	X	X	B
LHX165	H	H	H	H	H	H	H	H	C	H	H	H	H	H	A	A	H	H	H	H	H	H
LHX166	B	B	B	B	B	B	B	H	C	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX167	H	H	H	H	H	H	H	A	A	A	A	A	A	H	H	H	H	H	H	H	H	H
LHX168	H	H	H	H	H	H	H	A	X	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX169	B	B	B	B	B	B	X	B	A	X	H	H	X	A	A	H	H	H	H	H	H	X
LHX170	H	H	H	H	H	H	H	H	C	H	H	H	H	B	B	B	B	B	B	B	B	B
LHX171	H	H	H	B	B	B	B	H	C	H	H	H	B	B	B	B	B	B	B	B	B	H
LHX172	B	B	B	B	B	B	B	A	A	A	A	H	H	H	H	H	H	H	A	A	A	A
LHX173	H	H	H	H	H	H	H	H	C	H	H	H	B	H	H	H	H	H	H	H	H	H
LHX174	B	H	H	H	H	H	H	A	C	H	H	H	H	H	H	H	H	H	B	B	B	B
LHX175	B	B	B	B	B	B	B	H	C	H	H	H	H	B	H	H	H	H	H	H	H	H
LHX176	H	H	H	H	H	H	A	A	A	A	A	A	H	B	B	B	B	B	H	H	H	H
LHX177	A	A	A	A	A	A	H	A	C	H	H	X	H	B	H	H	H	H	H	H	X	H
LHX178	H	H	H	H	H	H	H	A	A	A	A	A	H	B	H	H	H	H	H	H	H	H
LHX179	A	A	A	A	A	A	A	H	C	H	H	H	H	A	A	A	A	A	H	H	H	H
LHX180	B	B	B	B	B	B	B	H	C	H	H	H	H	B	X	X	X	X	X	X	X	X
LHX181	B	H	H	H	H	B	B	H	C	B	B	B	B	A	H	H	H	H	H	H	H	H
LHX182	B	B	B	B	B	B	B	A	A	A	A	A	H	B	B	B	B	B	B	B	B	B
LHX183	H	H	H	H	H	H	H	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
LHX184	H	H	H	H	H	B	B	H	C	H	A	A	H	H	A	A	H	H	H	H	H	H
LHX185	H	H	H	H	H	H	B	B	C	B	B	H	H	H	H	H	H	H	H	H	H	H
LHX186	H	H	H	H	H	B	B	A	A	H	H	H	H	B	B	B	H	H	H	H	H	H
LHX187	H	H	H	H	H	H	H	H	C	H	A	A	A	H	H	H	H	H	H	H	H	H
LHX188	H	H	H	H	H	H	H	B	X	B	B	B	B	H	H	H	H	H	H	H	H	H
LHX189	B	B	B	B	B	B	H	B	C	B	B	B	B	B	B	B	B	B	H	H	H	H
LHX190	H	H	H	H	H	A	A	B	C	B	B	H	H	H	H	H	H	H	H	H	H	H
LHX191	B	H	H	H	H	H	H	H	X	B	B	B	H	H	H	H	H	H	H	H	H	H
LHX192	H	H	H	A	A	A	A	H	C	B	B	B	B	H	H	H	H	H	H	H	H	H
LHX193	H	H	H	H	H	H	H	H	C	H	B	H	B	A	A	A	A	A	H	H	H	H
LHX194	B	B	B	B	B	B	B	H	C	B	B	B	A	B	B	B	B	B	B	B	B	B
LHX197	H	H	H	H	H	H	H	H	C	B	B	B	B	B	B	B	B	B	B	B	B	B
LHX198	A	A	A	A	A	A	A	H	C	H	H	H	H	B	H	H	H	H	H	H	H	H
LHX199	H	H	H	H	H	H	H	A	A	A	A	H	H	B	B	B	B	B	H	H	H	H
LHX200	H	H	H	H	H	H	H	H	C	B	B	H	B	A	A	A	A	A	B	B	B	B
LHX201	H	A	A	A	A	A	A	A	A	A	A	H	H	B	B	B	B	B	B	B	B	B
LHX202	B	B	B	B	B	B	B	H	C	B	B	B	B	B	H	H	H	H	H	H	H	H
LHX203	H	H	H	H	H	H	H	H	C	B	B	B	B	A	A	A	A	A	H	H	H	H
LHX204	H	B	B	B	B	B	H	B	C	B	B	B	H	A	A	A	A	A	A	A	A	A
LHX205	H	H	H	H	H	H	H	H	C	A	A	A	H	B	B	B	H	H	A	A	A	A
LHX206	H	H	H	H	H	H	H	A	X	A	H	H	H	H	H	H	A	A	A	A	A	A

LHX207	A	H	H	H	H	H	H	H	C	H	H	H	H	B	B	B	B	B	H	H	H	H
LHX208	B	H	H	H	H	H	H	H	C	B	B	H	B	H	H	H	H	H	H	H	H	A
LHX209	H	H	H	H	H	H	H	H	C	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX210	H	A	A	A	A	A	A	H	C	B	B	B	B	H	H	H	H	H	H	H	H	H
LHX211	H	B	B	B	B	B	H	A	X	H	H	A	A	H	H	H	A	A	A	A	A	H
LHX212	H	H	H	H	H	H	H	H	C	H	A	A	A	B	B	B	B	B	B	B	B	B
LHX213	H	H	H	H	H	H	H	H	C	B	B	B	H	H	H	H	H	H	H	H	H	B
LHX214	B	B	B	B	B	B	H	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
LHX215	H	H	H	H	H	H	H	H	C	B	B	B	B	B	B	B	B	B	B	B	B	B
LHX216	A	H	H	H	H	H	H	H	C	B	B	B	H	A	A	A	A	A	A	A	A	A
LHX217	X	B	B	B	B	B	B	B	C	X	X	X	X	X	X	X	B	B	B	B	B	X
LHX218	A	A	A	A	A	A	A	H	C	H	B	B	B	B	B	B	B	B	B	B	B	B
LHX219	A	A	A	A	A	A	A	H	C	H	H	H	B	A	A	A	A	A	A	A	A	A
LHX220	H	B	B	B	B	B	B	B	C	B	B	B	B	H	H	H	H	H	H	H	H	H
LHX221	H	H	H	H	H	H	H	H	C	B	B	H	H	A	A	A	A	A	H	H	H	B
LHX222	H	H	H	H	H	H	H	A	A	A	A	A	H	H	H	H	H	H	H	H	H	H
LHX223	H	A	A	A	A	A	H	A	A	A	H	H	H	H	H	H	B	B	B	B	B	H
LHX224	B	B	B	B	B	B	B	A	C	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX225	B	B	B	B	B	B	B	H	C	H	H	H	B	H	A	A	A	A	A	A	A	A
LHX226	H	H	H	H	H	H	H	H	C	H	H	H	B	A	A	A	A	A	A	A	A	A
LHX227	B	B	B	B	B	B	B	B	C	B	B	B	B	A	A	A	A	A	A	A	A	B
LHX228	B	B	B	B	B	B	H	H	C	H	H	H	H	A	A	A	A	A	H	H	H	H
LHX229	H	H	H	H	H	H	H	H	C	H	A	A	A	H	H	H	H	H	A	A	A	A
LHX230	B	B	B	B	B	B	B	H	C	H	H	H	A	A	A	A	A	A	H	H	H	H
LHX231	H	B	B	B	B	B	B	A	A	A	A	A	A	B	B	B	B	B	A	A	A	A
LHX232	A	H	H	H	H	H	H	H	C	H	H	H	A	A	A	A	A	A	H	H	H	H
LHX233	B	H	H	H	H	H	H	H	C	B	B	B	B	A	A	A	A	A	H	H	H	H
LHX234	B	B	B	B	B	B	B	B	C	B	B	B	B	H	H	H	H	H	H	H	H	H
LHX235	A	A	A	A	A	A	A	A	A	A	A	A	A	H	H	H	H	H	H	H	H	H
LHX236	A	A	A	A	A	A	A	A	A	A	A	A	A	H	H	H	H	H	H	H	H	H
LHX237	H	H	H	H	H	H	H	H	X	H	H	X	H	H	H	H	H	H	H	H	H	H
LHX238	H	H	H	H	H	H	B	H	C	H	H	H	H	A	A	A	A	A	A	A	A	H
LHX239	A	A	A	A	A	A	A	H	C	B	B	A	A	A	A	A	A	A	A	X	A	A
LHX240	B	B	B	B	B	B	B	A	C	A	A	A	A	H	H	H	H	H	H	H	H	H
LHX242	H	H	H	H	H	H	B	A	A	A	A	A	H	A	A	A	A	A	A	A	A	A
LHX243	H	H	H	H	H	H	H	A	A	A	H	H	H	A	A	A	A	A	A	A	A	A
LHX244	A	A	A	A	A	A	A	H	C	H	H	H	H	A	A	A	A	A	H	H	H	H
LHX245	A	A	A	A	A	A	A	H	C	H	H	H	A	H	H	H	H	H	H	H	H	B
LHX246	B	B	B	B	B	B	B	A	A	A	H	H	H	A	A	A	A	A	A	A	A	A
LHX247	A	A	A	A	A	A	A	H	C	B	B	H	H	B	B	B	H	H	H	H	H	H
LHX248	H	H	H	B	B	B	B	H	X	B	B	B	H	B	B	B	B	B	H	H	H	H
LHX249	B	B	B	B	B	B	B	X	C	H	H	H	A	A	A	A	A	B	B	B	B	B
LHX250	A	H	H	H	H	H	H	A	C	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX251	B	B	B	B	B	B	B	A	A	A	A	A	A	H	H	H	H	H	H	H	H	B
LHX252	B	B	H	H	H	H	H	H	C	B	X	H	X	A	A	A	A	A	A	A	A	A
LHX253	H	H	H	H	H	H	H	A	A	A	A	A	A	H	H	H	H	H	H	H	H	H
LHX254	H	H	H	H	H	H	H	H	C	H	H	H	H	B	B	B	B	B	B	B	B	B
LHX255	A	A	A	A	A	A	A	A	A	A	A	H	H	B	B	B	B	B	H	H	H	H
LHX256	A	A	A	A	A	A	A	A	A	A	A	A	H	H	H	H	H	H	A	A	A	A
LHX257	A	A	A	A	A	A	A	A	C	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX258	B	B	B	B	B	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
LHX259	A	A	A	A	A	A	A	B	C	B	A	A	A	B	B	B	B	B	B	B	B	A

LHX260	H	H	H	B	B	B	B	H	C	H	H	H	H	H	H	H	X	H	H	H	H	H
LHX261	A	A	A	H	H	H	H	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B
LHX262	B	B	B	B	B	B	H	H	C	H	B	B	H	A	A	A	A	A	A	A	A	A
LHX263	B	B	B	B	B	B	B	A	A	A	A	A	A	A	A	A	A	A	H	H	H	H
LHX264	H	H	H	H	H	H	H	H	C	H	H	H	H	H	H	H	H	H	H	H	H	H
LHX265	B	B	B	B	B	B	B	H	C	H	H	H	H	B	B	B	B	B	B	B	B	B
LHX266	H	H	H	H	H	H	H	H	C	H	H	H	H	H	H	H	H	H	A	A	A	A
LHX267	A	A	A	A	A	A	A	H	C	H	H	H	H	H	H	H	H	B	B	B	B	B
LHX268	H	A	A	A	A	A	A	H	C	H	H	H	H	A	A	A	A	A	H	H	H	H
LHX269	A	A	A	A	A	A	A	B	C	B	B	B	H	H	H	H	H	H	H	H	H	H
LHX270	A	A	A	A	A	A	A	H	C	H	A	H	H	H	H	H	H	H	H	H	H	H
LHX271	H	A	A	A	A	A	A	H	C	B	B	B	B	A	H	H	H	H	H	H	H	B
LHX272	H	H	H	H	H	H	H	H	C	H	H	H	H	H	H	H	H	H	H	H	H	A
LHX273	X	B	B	B	B	X	B	H	C	H	H	H	H	A	H	X	X	B	B	B	A	X
LHX274	B	B	B	B	B	B	B	H	C	H	H	H	H	H	H	H	H	H	B	B	B	B
LHX275	B	X	B	B	B	B	B	H	C	H	H	H	H	H	H	H	H	H	B	B	B	B
LHX276	H	H	H	H	H	H	H	H	C	H	H	H	H	A	A	A	H	H	H	H	H	H
LHX277	H	H	H	H	H	H	H	H	C	H	B	B	B	H	H	H	H	H	H	H	H	H
LHX278	H	H	H	H	H	H	H	H	C	H	B	B	B	H	H	H	H	H	H	H	H	H
LHX279	A	A	A	A	A	A	A	H	C	H	B	B	B	H	H	H	H	H	H	H	H	H
LHX280	B	B	B	B	B	B	B	H	C	A	A	A	H	H	H	H	H	H	H	H	H	H
LHX281	H	H	H	B	B	B	X	A	X	A	H	H	H	H	A	A	X	H	H	H	H	X
LHX282	A	A	A	A	A	A	A	H	C	B	B	H	A	A	H	X	H	H	H	H	H	H
LHX283	H	H	H	B	B	H	H	H	C	H	H	A	H	A	A	A	A	A	A	A	A	A
LHX284	H	H	H	B	B	B	X	H	C	H	H	H	H	X	X	A	A	A	A	A	A	X
LHX286	A	A	A	A	A	H	H	H	C	H	H	H	A	H	H	H	B	B	B	B	B	H