

**Supplementary Table 1** Identified proteins in BN-SDS gels of WT and LepB1 mutant. Spots 1, 2, 4-16 from Fig. 2; Spots 3a and 3b from Fig. 3.

Spot new	ORF	MW, kDa	protein	Mowse score	No of unique peptides
<b>1</b>	Slr1834	83.1	PSI, PsaA	2997	18
	Slr1835	81.3	PSI, PsaB	2218	19
<b>2</b>	Slr0737	15.7	PSI, PsaD	5548	23
<b>3a</b>	SII0819	15.8	PSI, PsaF	7948	39
<b>3b</b>	SII0819	15.8	PSI, PsaF	3977	29
<b>4</b>	Slr1655	16.6	PSI, PsaL	3061	7
<b>5</b>	Ssr2831	8.1	PSI, PsaE	1584	6
<b>6a</b>	Slr1329	51.8	ATP synthase F1 $\beta$	14065	50
<b>6a</b>	SII1326	54.0	ATP synthase F1 $\alpha$	7826	43
<b>6b</b>	SII1327	34.6	ATP synthase F1 $\gamma$	5696	19
<b>6d</b>	SII1325	20.1	ATP synthase F1 $\delta$	3424	19
<b>6d</b>	SII1324	20.0	ATP synthase Fo b	1635	21
<b>6c</b>	SII1322	27.4	ATP synthase Fo a	657	4
<b>6e</b>	Slr1330	14.6	ATP synthase F1 $\epsilon$	237	4
<b>7a</b>	Slr0261	44.6	NADH dehydr H	3109	41
<b>7c</b>	Slr1280	27.6	NADH dehydr B	1936	29
<b>7d</b>	SII0520	22.6	NADH dehydr I	1124	25
<b>7b</b>	SII0519	40.6	NADH dehydr H	314	4
<b>7e</b>	Slr1281	20.8	NADH dehydr J	209	6
<b>8</b>	Slr0906	55.9	PSII CP47	6330	32
<b>9</b>	SII0851	50.4	PSII CP43	3121	33
	Slr0906	55.9	PSII CP47	2527	27
<b>10</b>	SII0851	50.4	PSII CP43	4036	30
<b>11</b>	SII0849/ Slr0927	39.6	PSII D2	2062	9
<b>12</b>	Slr1311/ SII1867	39.9	PSII D1	1260	6
<b>13</b>	Ssr3451	9.4	PSII cytb559 $\alpha$	2480	4
<b>14a</b>	SII1317	30.5	Cytb6-f compl cytf	3339	20
<b>14b</b>	Slr1317	30.5	Cytb6-f compl cytf	2303	20
<b>15</b>	Slr0342	25.1	Cytb6-f compl cyt b6	604	6
<b>16</b>	Slr0343		Cytb6-f compl subunit IV	1221	8

Spots 6a-6e were analysed in one MS/MS experiment; Spots 7a-7e were analysed in one MS/MS experiment.