

**Table 2** Peptides of the photosynthetic apparatus measured with the Mass Western. Subcellular localization and concentrations in mixotrophic (M) and autotrophic (A) growth conditions. For the two growth conditions the peptide concentration is given in attomole per 1000 cells. Relative distributions of the peptides on the three subcellular fractions mitochondrial membrane, chloroplast membrane and soluble fraction are given as percentage and calculated as average levels of both growth conditions. In case the distribution of a peptide within a subcellular compartment was different between the two growth conditions, separate contributions (M) *versus* (A) are indicated and quantified in percentage. Protein annotation numbers are sometimes labelled with an underscore digit indicating different peptides of the same protein. Relative standard deviations are calculated from  $n = 4$  biological replicates per growth condition

Protein JGI Chlre3 #	Mitochondria membrane (%)	Chloroplast membrane (%)	Stroma, Cytosol soluble (%)	M amol per 10 <sup>3</sup> cells	A amol per 10 <sup>3</sup> cells	M SE (%)	A SE (%)	Identifier
Light harvesting complex								
184731	1	95	4	523	613	±19	±2	LhcSR3
184810	2 (M)/9 (A)	91 (M)/57 (A)	7 (M)/34 (A)	121	592	±25	±17	LhcB4
205900	3	nd	97	31	nd	±23	nd	unknown
PSII								
33411_1	0	56	44	4200	2652	±12	±8	PSBP
33411_2	1	71	28	3647	2498	±9	±11	PSBP
127879	4	11	84	28	25	±25	±7	PSBP6
205877	nd	nd	nd	nd	nd	nd	nd	PSBP2
205923	3	30	67	11	15	±38	±15	unknown
205907	0	31	69	16	45	±32	±14	unknown
153656_1	9	89	2	3799	3419	±25	±4	PSBQ
153656_2	2	73	25	3417	3046	±12	±18	PSBQ
205916_1	2	18	80	71	54	±26	±6	PSBP4
205916_2	2	7	91	p68	50	±29	±6	PSBP4
182896_1	5	95	nd	66	82	±29	±7	PSB28
182896_2	3	93	4	78	91	±28	±7	PSB28
130316_1	2	66	32	3081	2654	±15	±6	PSBO
130316_2	2	80	18	2942	2297	±11	±2	PSBO
Electron transport								
193296	5	72	23	147	258	±30	±16	PETC
185915	2 (M)/7 (A)	4 (M)/39 (A)	94 (M)/54 (A)	8356	1650	±12	±6	PCY
195553	nd	38	62	982	477	±17	±19	FNR1
134235_1	1	94	5	1046	366	±11	±8	ATPase
134235_2	nd	92	8	1304	577	±14	±6	ATPase
atpB	33	64	3	1986	403	±15	±12	atpB