

**Supplementary Table 1.** Proteins observed primarily within the outer membrane after performing Z-score analysis and clustering on proteins detected in multiple sub-cellular fractions. These proteins were observed in both *Rhodobacter sphaeroides* aerobic and photosynthetic cell cultures.

ORF ID	Percent Coverage	Unique Peptides	Protein Residue Count	Description
RSP0007	31	6	374	Putative outer membrane protein
RSP0243	43	18	342	Putative lipoprotein
RSP0759	50	12	378	Putative capsule polysaccharide exporter
RSP0837	36	6	231	Hypothetical
RSP0839	22	3	162	Predicted secreted periplasmic protein
RSP0841	39	9	206	Hypothetical protein
RSP0842	41	18	330	Putative porin
RSP0891	69	13	262	Putative lipoprotein
RSP1182	27	10	607	Putative outer membrane protein
RSP1187	49	25	722	Hypothetical protein
RSP1200	68	8	184	Putative membrane protein with putative signal leader peptide
RSP1754	53	12	269	Conserved hypothetical
RSP1812	44	10	391	Conserved hypothetical protein
RSP1880	34	12	519	Hypothetical protein
RSP1972	49	4	150	Hypothetical protein
RSP2117	49	11	278	Putative ComL lipoprotein.
RSP2402	44	21	611	Putative TonB dependent Vitamin B12 outer membrane receptor
RSP2507	16	3	203	Outer membrane protein
RSP2616	52	7	165	Conserved hypothetical protein
RSP2698	64	19	448	Putative bacterial quinoprotein
RSP2711	50	32	799	Putative outer membrane protein
RSP2718	62	6	200	Possible outer membrane protein
RSP2812	50	5	201	Conserved hypothetical protein
RSP2847	42	5	189	Conserved hypothetical protein
RSP3349	66	12	292	Hypothetical
RSP3669	19	14	1175	Conserved hypothetical protein
RSP3768	22	2	120	Hypothetical
RSP6001	47	3	90	Hypothetical
RSP6008	18	4	315	Hypothetical protein
RSP6151	46	5	133	Hypothetical