

## SUPPORTING INFORMATION

### Identification of a hemerythrin-like domain in a P<sub>1B</sub>-type transport ATPase<sup>†</sup>

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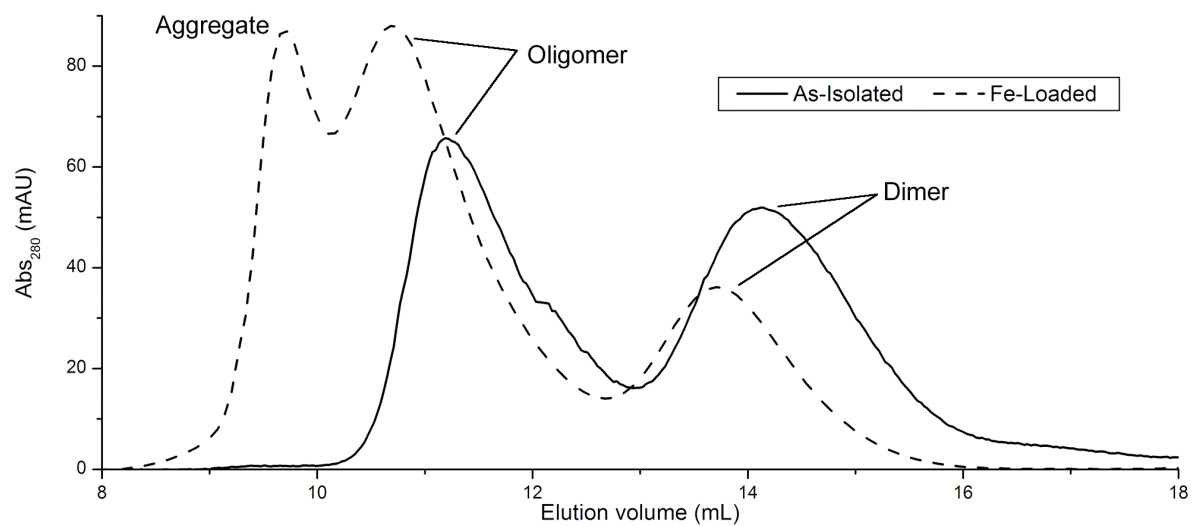


Figure S1: Analytical gel filtration analysis of P<sub>1B-5</sub>-Hr. A calibrated 22.5 mL Superdex-75 column was equilibrated with 50 mM Tris, pH 7.0, and 200 mM NaCl. The calculated masses of the as-isolated and iron-loaded dimers are 33.7 kDa and 39.9 kDa, respectively.

Figure S2: The GI numbers of the 195 identified P<sub>1B-5</sub>-ATPases listed by source organism, alphabetically. Italics are used to denote proteins that contain a C-terminal soluble metal binding domain.

<u>Source:</u>	<u>GI#</u>
(uncultured bacterium)	255292694
Acidiphilium cryptum JF-5	148262009
Acidobacterium capsulatum ATCC51196	225874260
<i>Acidothermus cellulolyticus</i> 11B	117927237
Agrobacterium radiobacter K84	222081286
Arthrobacter chlorophenolicus A6	220912832
Arthrobacter sp. FB24	116668908
Aurantimonas manganoxydans SI85-9A1	92117484
Azorhizobium caulinodans ORS571	158423267
bacterium Ellin514	223940178
Bacteroides vulgatus EK4.2	294781379
Beutenbergia cavernae DSM12333	229818741
Bifidobacterium adolescentis ATCC15703	119025076
Bifidobacterium adolescentis L2-32	154486406
Bifidobacterium angulatum DSM20098	229816919
Bifidobacterium animalis subsp. lactis HN019	183602224
Bifidobacterium bifidum NCIMB41171	224282233
Bifidobacterium breve DSM20213	291455776
Bifidobacterium catenulatum DSM16992	212715204
Bifidobacterium dentium ATCC27678	171741678
Bifidobacterium gallicum DSM20093	261338486
Bifidobacterium longum DJO10A	23336194
Bifidobacterium longum DJO10A	189440214
Bifidobacterium longum NCC2705	23465139
Bifidobacterium longum subsp. infantis ATCC15697	213691024
Bifidobacterium longum subsp. infantis ATCC55813	227547406
Bifidobacterium longum subsp. infantis CCUG52486	239622749
Bifidobacterium longum subsp. longum F8	291517665
Bifidobacterium pseudocatenulatum D2CA	295088290
Bifidobacterium pseudocatenulatum DSM20438	225352432
Blastopirellula marina DSM3645	87311009
<i>Bradyrhizobium</i> sp. <i>BTAi1</i>	148252886
<i>Bradyrhizobium</i> sp. <i>BTAi1</i>	148254856
<i>Bradyrhizobium</i> sp. <i>ORS278</i>	146343094
Brevibacterium mcbrellneri ATCC49030	295395974
<i>Burkholderia ambifaria</i> MC40-6	172065508
<i>Burkholderia cenocepacia</i> J2315	206562184

<i>Burkholderia dolosa</i> AUO158	254255483
<i>Burkholderia glumae</i> BGR1	238024475
<i>Burkholderia multivorans</i> ATCC17616	254255483
<i>Burkholderia phymatum</i> STM815	186471018
<i>Burkholderia vietnamiensis</i> G4	134291679
<i>Chromobacterium violaceum</i> ATCC12472	34498203
<i>Corynebacterium amycolatum</i> SK46	213966070
<i>Corynebacterium efficiens</i> YS-314	259507553
<i>Corynebacterium efficiens</i> YS-314	25028496
<i>Corynebacterium glutamicum</i> ATCC13032	19551725
<i>Corynebacterium glutamicum</i> R	145294634
<i>Corynebacterium urealyticum</i> DSM7109	172040330
<i>Enterococcus faecalis</i> AR01/DG	257416810
<i>Enterococcus faecalis</i> ATCC29200	229549253
<i>Enterococcus faecalis</i> ATCC4200	256616865
<i>Enterococcus faecalis</i> CH188	257090762
<i>Enterococcus faecalis</i> DS5	256957860
<i>Enterococcus faecalis</i> HH22	227554118
<i>Enterococcus faecalis</i> HIP11704	256963740
<i>Enterococcus faecalis</i> Merz96	256961141
<i>Enterococcus faecalis</i> PC1.1	293378705
<i>Enterococcus faecalis</i> T2	255975024
<i>Enterococcus faecalis</i> T3	256763259
<i>Enterococcus faecalis</i> T8	256853932
<i>Enterococcus faecalis</i> TUSoD Ef11	238857216
<i>Enterococcus faecalis</i> TX0104	227519692
<i>Enterococcus faecalis</i> TX1322	229545009
<i>Enterococcus faecalis</i> V583	29377108
<i>Enterococcus faecalis</i> X98	257421795
<i>Enterococcus faecium</i> 1	257885295
<i>Enterococcus faecium</i> 1	257888610
<i>Enterococcus faecium</i> Com15	257898953
<i>Enterococcus faecium</i> DO	69245746
<i>Enterococcus faecium</i> E1039	293556703
<i>Enterococcus faecium</i> E1679	294619106
<i>Enterococcus faecium</i> E980	293571018
<i>Enterococcus faecium</i> TX1330	227550585
<i>Enterococcus</i> sp.7L76	295113598
<i>Gardnerella vaginalis</i> 409-05	283782528
<i>Gardnerella vaginalis</i> ATCC14019	227506609
<i>Hoeflea phototrophica</i> DFL-43	163757665
<i>Jonesia denitrificans</i> DSM20603	256832151
<i>Lactobacillus acidophilus</i> NCFM	58338172
<i>Lactobacillus amylolyticus</i> DSM11664	295425550
<i>Lactobacillus antri</i> DSM16041	259501808
<i>Lactobacillus brevis</i> ATCC367	116333058

Lactobacillus brevis subsp. gravesensis ATCC27305	227508416
Lactobacillus buchneri ATCC11577	227511422
Lactobacillus casei ATCC334	116496221
Lactobacillus casei BL23	191639747
Lactobacillus crispatus125-2-CHN	256843893
Lactobacillus crispatus214-1	293381163
Lactobacillus crispatus JV-V01	227878436
Lactobacillus crispatus MV-1A-US	256849544
Lactobacillus crispatus MV-3A-US	262046212
Lactobacillus crispatus ST1	295693834
Lactobacillus delbrueckii subsp. bulgaricus ATCC11842	104774768
Lactobacillus delbrueckii subsp. bulgaricus ATCC BAA-365	116514903
Lactobacillus gasseri202-4	238852800
Lactobacillus gasseri224-1	282850687
Lactobacillus gasseri ATCC33323	116630367
Lactobacillus gasseri JV-V03	227522005
Lactobacillus gasseri MV-22	226820386
Lactobacillus helveticus DPC4571	161508189
Lactobacillus helveticus DSM20075	260101923
Lactobacillus hilgardii ATCC8290	227523622
Lactobacillus jensenii269-3	238855459
Lactobacillus jensenii27-2-CHN	256851645
Lactobacillus jensenii JV-V16	297205253
Lactobacillus jensenii SJ-7A-US	260665179
Lactobacillus johnsonii FI9785	268320203
Lactobacillus johnsonii NCC533	42519841
Lactobacillus paracasei subsp. paracasei8700:2	239630669
Lactobacillus paracasei subsp. paracasei ATCC25302	227532788
Lactobacillus plantarum JDM1	254557835
Lactobacillus plantarum WCFS1	28379680
Lactobacillus reuteri100-23	194467568
Lactobacillus reuteri CF48-3A	227544769
Lactobacillus reuteri DSM20016	148543417
Lactobacillus rhamnosus GG	258509798
Lactobacillus rhamnosus HN001	199597656
Lactobacillus rhamnosus HN001	199599693
Lactobacillus rhamnosus Lc705	258540985
Lactobacillus rhamnosus LMS2-1	229551258
Lactobacillus ruminis ATCC25644	227527776
Lactobacillus sakei subsp. sakei23K	81428580
Lactobacillus salivarius ATCC11741	227892447
Lactobacillus salivarius UCC118	90961151
Lactobacillus ultunensis DSM16047	227893892
Lactococcus lactis subsp. cremoris MG1363	125622979
Lactococcus lactis subsp. cremoris SK11	116510911
Lactococcus lactis subsp. lactis II1403	15672077

Lactococcus lactis subsp. lactis KF147	281490559
Legionella longbeachae D-4968	270158918
Mesorhizobium loti MAFF303099	13475503
Mesorhizobium sp. BNC1	110634596
Methylacidiphilum inferorum V4	189219327
Methylobacterium chloromethanicum CM4	218529299
Methylobacterium extorquens AM1	240137622
Methylobacterium extorquens AM1	240140324
Methylobacterium extorquens DM4	254558953
Methylobacterium extorquens DM4	254560195
<i>Methylobacterium nodulans</i> ORS2060	220919964
<i>Methylobacterium nodulans</i> ORS2060	220925984
Methylobacterium radiotolerans JCM2831	170746832
Methylobacterium radiotolerans JCM2831	170748978
Methylobacterium sp.4-46	170741753
<i>Methylocella silvestris</i> BL2	217979864
Micrococcus luteus SK58	289706347
<i>Micromonospora aurantiaca</i> ATCC27029	270500961
<i>Mycobacterium gilvum</i> PYR-GCK	145225569
<i>Mycobacterium kansasii</i> ATCC12478	240171847
<i>Mycobacterium marinum</i> M	183983486
<i>Mycobacterium</i> sp. MCS	108798052
<i>Mycobacterium vanbaalenii</i> PYR-1	120402396
<i>Nakamurella multipartita</i> DSM44233	258654385
Nitrobacter hamburgensis X14	92117484
Oceanibulbus indolifex HEL-45	163744196
Ochrobactrum anthropi ATCC49188	153011922
Ochrobactrum anthropi ATCC49188	153012045
Ochrobactrum intermedium LMG3301	239834632
Parachlamydia acanthamoebae str. Hall's coccus	282891768
Pediococcus pentosaceus ATCC25745	116491908
Pirellula staleyi DSM6068	283781773
Planctomyces limnophilus DSM3776	296121198
Planctomyces maris DSM8797	149175592
<i>Pseudomonas putida</i> F1	148547671
<i>Ralstonia eutropha</i> H16	113867966
<i>Ralstonia eutropha</i> JMP134	73540929
<i>Ralstonia pickettii</i> 12J	187926549
Rhizobium leguminosarum bv. viciae3841	116251636
<i>Rhodococcus equi</i> ATCC33707	295817629
<i>Rhodococcus erythropolis</i> PR4	226306903
<i>Rhodomicrobium vannielii</i> ATCC17100	283824493
Rhodopirellula baltica SH1	32473383
Roseobacter sp. GAI101	254488107
Roseovarius sp.217	85704360
Roseovarius sp. HTCC2601	114762510

Roseovarius sp. TM1035	149201293
<i>Saccharopolyspora erythraea</i> NRRL2338	134098976
<i>Saccharopolyspora erythraea</i> NRRL2338	291006784
<i>Salinispora arenicola</i> CNS-205	159037165
<i>Salinispora tropica</i> CNB-440	145594127
<i>Sanguibacter keddieii</i> DSM10542	269794134
<i>Sinorhizobium meliloti</i>	270208673
<i>Sinorhizobium meliloti</i> 1021	270208673
<i>Streptococcus gallolyticus</i> UCN34	288906222
<i>Streptococcus infantarius</i> subsp. <i>infantarius</i> ATCC BAA-102	171779135
<i>Streptomyces albus</i> J1074	239983484
<i>Streptomyces coelicolor</i> A3(2)	21218721
<i>Streptomyces lividans</i> TK24	256790300
<i>Streptomyces scabiei</i> 87.22	290955608
<i>Streptomyces viridochromogenes</i> DSM40736	256799641
<i>Thiomicrospira crunogena</i> XCL-2	78485067
<i>Verrucomicrobium spinosum</i> DSM4136	171915328
<i>Weissella paramesenteroides</i> ATCC33313	241896616
<i>Xanthobacter autotrophicus</i> Py2	154245955
<i>Yersinia intermedia</i> ATCC29909	238791563