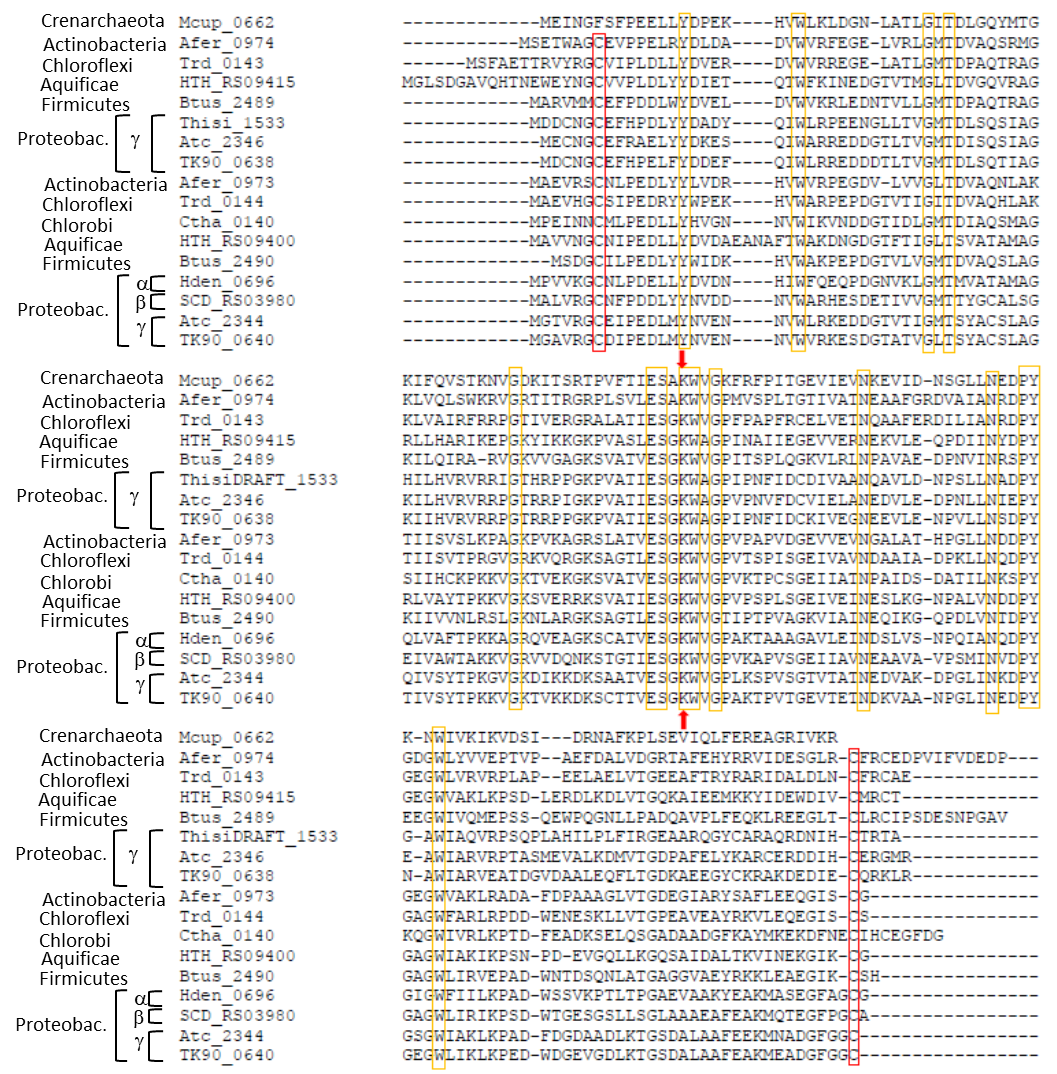
**Figure 2-figure supplement 1**



**Sequence alignment of Hdr-associated lipoate-binding proteins from seven archaeal and bacterial phyla.** The strictly conserved lipoate-binding lysine residue shared with the H proteins of the glycine-cleavage system is indicated by red arrows. Strictly conserved residues are marked with yellow boxes. Strictly conserved cysteine residues are highlighted by red boxes. Species: *Metallosphaera cuprina* Ar4T (Mcup\_0662 (AEB947679)) *Acidimicrobium ferrooxidans* DSM 10331T (Afer\_0973 (Acu53912), Afer\_0974 (ACU53913)), *Thermomicrobium roseum* DSM 5159T (Trd\_0143 (ACM05628), Trd\_0144 (ACM04497)), *Hydrogenobacter thermophiles* (HTH\_RS09400 (HTH\_1874, BAI70318), HTH\_RS09415 (HTH\_1877, BAI70321), *Kyrpidia tusciae* DSM 2912T(Btus\_2489 (ADG07149), Btus\_2490 (ADG07150)), *Thiorohdospira sibirica* ATCC 700588T (ThisiDRAFT\_1533 (EGZ46119)), *Acidithiobacillus caldus* SM-1 (Atc\_2344 (AEK58992), Atc\_2346 (AEK58994)), *Thioalkalivibrio* sp. K90mix (TK90\_0638 (ADC71153), TK\_0640 (ADC71155)), *Chloroherpeton thalassium* ATCC 35110T (Ctha\_0140 (ACF12611)), *Hyphomicrobium denitrificans* ATCC 51888T (Hden\_0696 (ADJ22516)), *Sulfuricella denitrificans* DSM 22764T (SCD\_RS03985 (SCD\_01710, BAN34642)). Proteobac., Proteobacteria.