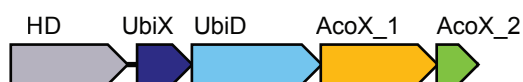


## Methanonatronarchaeia, Euryarchaea

*Methanonatronarchaeum thermophilum* strain AMET1, MRZU01000003, 82704..78029



*Candidatus Methanohalarchaeum thermophilum* isolate HMET1, MSDW01000001 1612290..1607688



## Euryarchaea

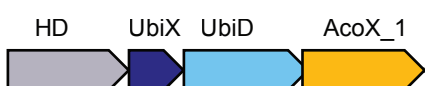
*Methanoregula boonei* 6A8, NC\_009712, 110616..113576



*Methanosarcina barkeri* Fusaro, NC\_007355, 857778..865412



*Methanoculleus bourgensis* MS2, NC\_018227, 1386054..1381888



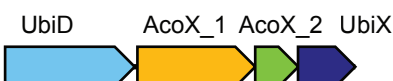
*Methanosalsum zhilinae* DSM 4017, NC\_015676, 1658160..1655301



*Archaeoglobus veneficus* SNP6, NC\_015320, 535436..533048



*Halorhabdus tiamatea* SARL4B, NC\_021921, 366631..363130



## Crenarchaea

*Ignisphaera aggregans* DSM 17230, NC\_014471, 1826877..1824014



*Staphylothermus marinus* F1, NC\_009033, 635314..640645



*Pyrobaculum aerophilum* IM2 NC\_003364 1318103..1320870



## Figure S1: UbiD co-localization with predicted archaeal aconitase AcoX.

For each locus, species name, genome accession number and the respective nucleotide coordinates are indicated.

The genes are shown by arrows. The scale of an arrow is roughly proportional to gene length.

The arrow indicates direction of the respective gene. Homologous genes and domains are color-coded.

Abbreviations and gene names: UbiX and UbiD – decarboxylase system components;

AcoX\_1 – predicted aconitase, enzymatic subunit; AcoX\_2 – AcoX\_1 associated swivelling domain;

AcoA – aconitase A; GltA – citrate synthase; HD – HD family hydrolase.