

Analysis of Carotenoids in Haloarchaea Species from Atacama Saline Lakes by High Resolution UHPLC-Q-Orbitrap-Mass Spectrometry: Antioxidant Potential and Biological Effect on Cell Viability

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Figure S1. General UV visible spectra of ruberins from Haloarchaeas.

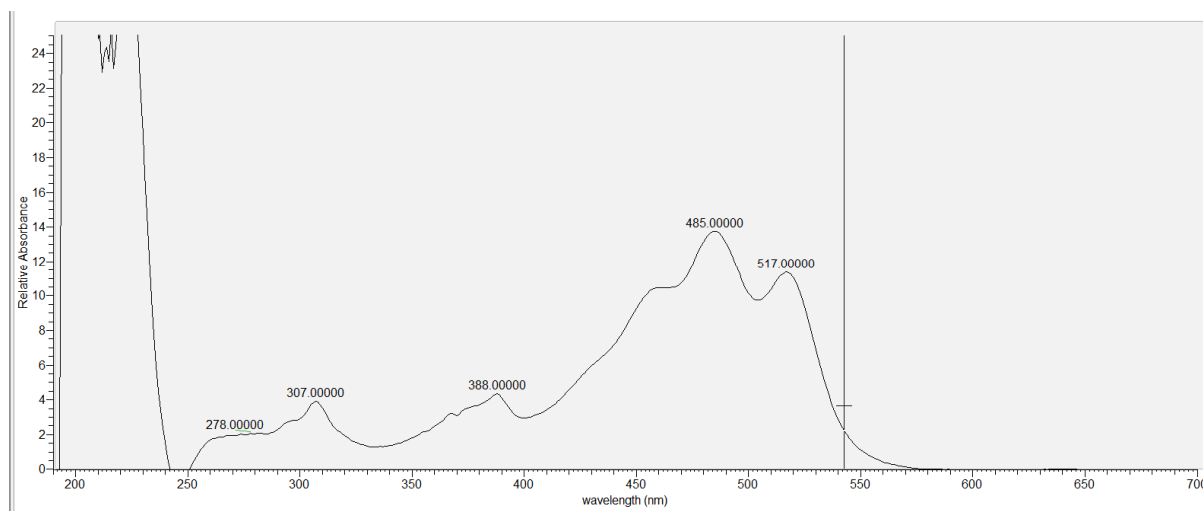


Figure S2. Full MS spectra of Bacterioruberin, peak 5.

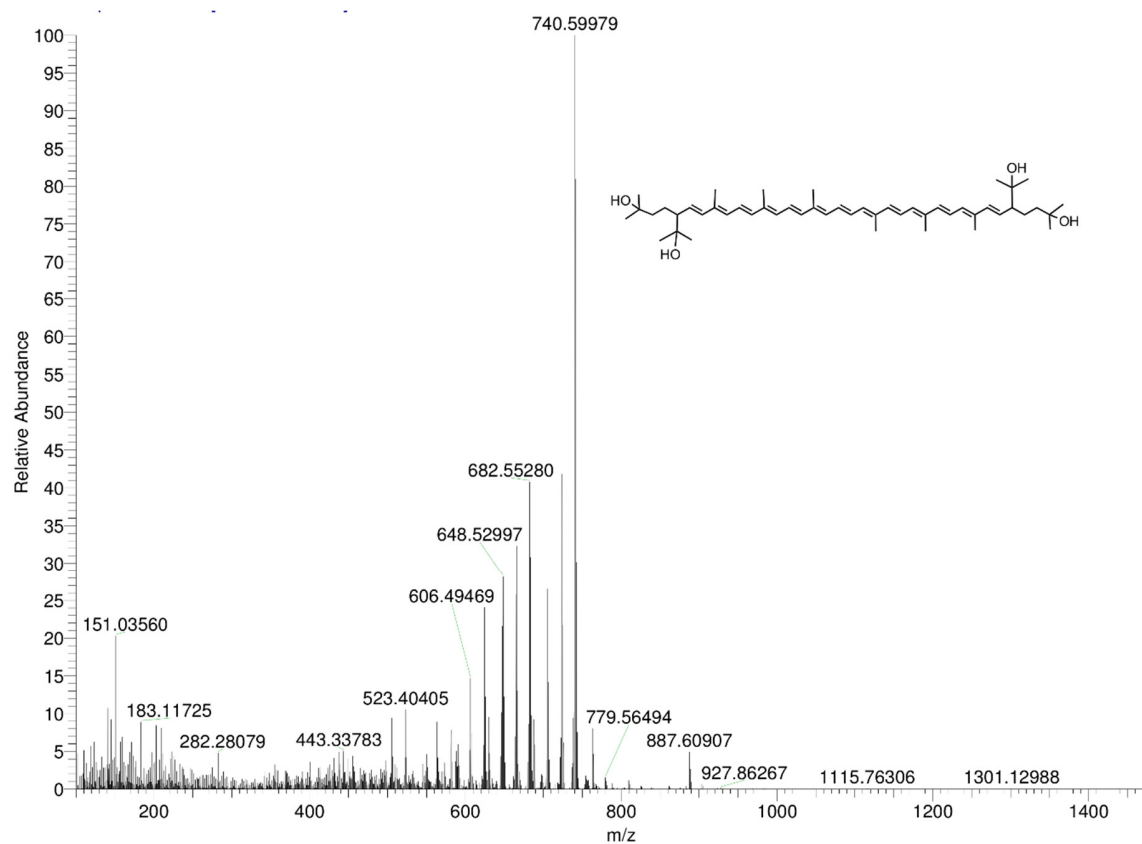
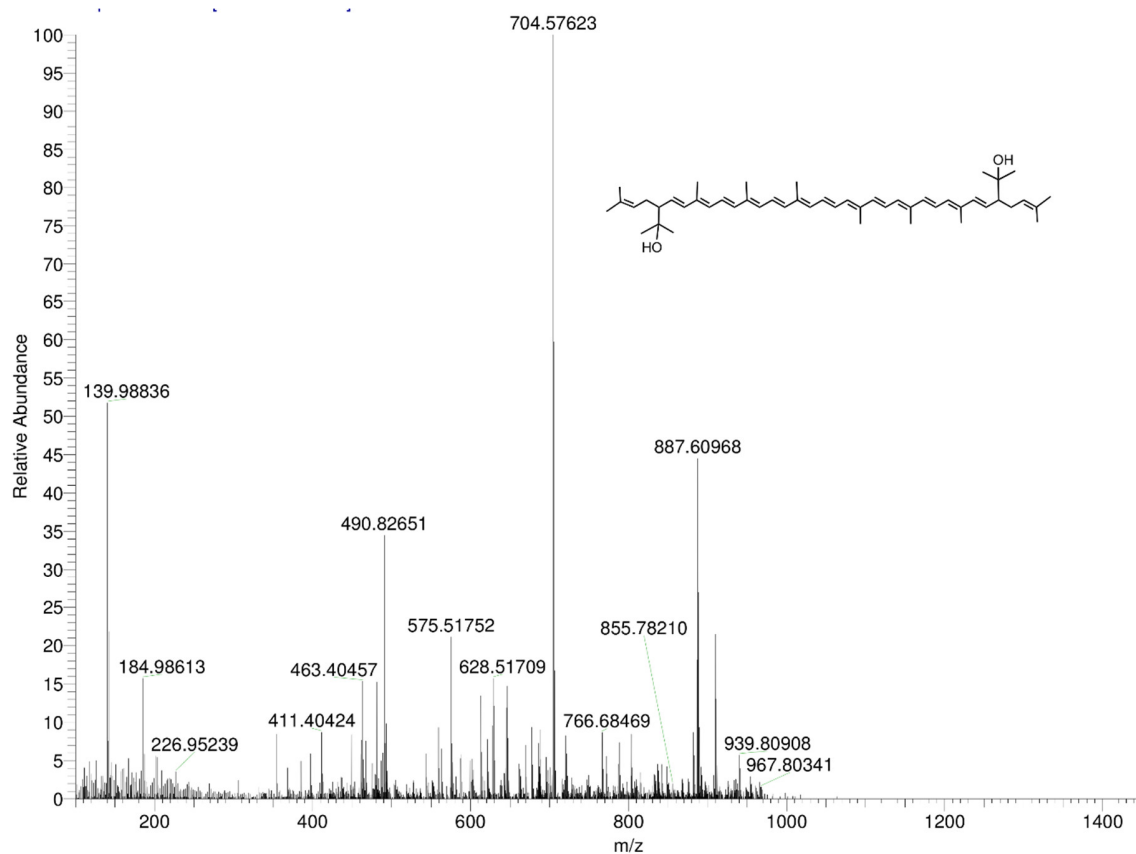


Figure S3. Full MS spectra of Bisanhidrobacterioruberin, peak 17.



REGISTERED DNA SEQUENCES

LOCUS MZ576846 1327 bp DNA linear BCT 21-JUL-2021

DEFINITION *Haloarcula* sp. strain TeSe-89 16S ribosomal RNA gene, partial sequence.

ACCESSION MZ576846

VERSION MZ576846 GI:2069852678

KEYWORDS

SOURCE *Haloarcula* sp.

ORGANISM *Haloarcula* sp.

Archaea; Euryarchaeota; Stenosarchaea group; Halobacteria;

Halobacteriales; Haloarculaceae; Haloarcula; unclassified

Haloarcula.

REFERENCE 1 (bases 1 to 1327)

AUTHORS Lizama-Jimenez,C.

TITLE Genus diversity of haloarchaeas in Laguna de Tebenquiche

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 1327)

AUTHORS Lizama-Jimenez,C., Andrade,D., Campos,V. and Rosello-Mora,R.

TITLE Direct Submission

JOURNAL Submitted (19-JUL-2021) *Tecnologia Medica*, Universidad de

Antofagasta, Av. Universidad de Antofagasta, Antofagasta,
Antofagasta 1240000, Chile

COMMENT Sequences were screened for chimeras by the submitter using
Sequencher 4.8.

##Assembly-Data-START##
Sequencing Technology :: Sanger dideoxy sequencing
##Assembly-Data-END##

FEATURES Location/Qualifiers

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	/mol_type="genomic DNA"
	/strain="TeSe-89"
	/db_xref="taxon:44098"
rRNA	<1..>1327
	/product="16S ribosomal RNA"

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121 tgtcgagagt gagaaacgtt ccggcgctgt aggatgtggc tgcggccgat taggtagatg
181 gtggggtaac ggcccacat gccgataatc ggtacggtg tgagagcaag agccggagac
241 ggtatctgag acaagatacc gggccctacg gggcgagca ggcgcgaaac ctttactg
301 cacgacagtg cgataggggg actccgagtg tgagggcata tagccctcgc ttttctgtac
361 cgtaaagtgg tacaggaaca aggactgggc aagaccggtg ccagccgccg cggtaatacc
421 ggcagtccaa gtgatggccg atattattgg gcctaaagcg tccgtagctg ctgtgtaagt
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541 ccgagagact caacgggtac gtccgggta ggagtgaaat cctgtaatcc tggacggacc
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1321 gaggccg

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LOCUS MZ576847 1375 bp DNA linear BCT 21-JUL-2021

DEFINITION *Halorubrum tebenquichense* strain TeSe-86 16S ribosomal RNA gene,
partial sequence.

ACCESSION MZ576847

VERSION MZ576847 GI:2069852679

KEYWORDS .

SOURCE *Halorubrum tebenquichense*

ORGANISM *Halorubrum tebenquichense*
Archaea; Euryarchaeota; Stenosarchaea group; Halobacteria;

Haloferacales; Halorubraceae; Halorubrum.

REFERENCE 1 (bases 1 to 1375)

AUTHORS Lizama-Jimenez,C.

TITLE Genus diversity of haloarchaeas in Laguna de Tebenquiche

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 1375)

AUTHORS Lizama-Jimenez,C., Andrade,D., Campos,V. and Rosello-Mora,R.

TITLE Direct Submission

JOURNAL Submitted (19-JUL-2021) Tecnologia Medica, Universidad de Antofagasta, Av. Universidad de Antofagasta, Antofagasta, Antofagasta 1240000, Chile

COMMENT Sequences were screened for chimeras by the submitter using Sequencher 4.8.

##Assembly-Data-START##

Sequencing Technology :: Sanger dideoxy sequencing

##Assembly-Data-END##

FEATURES Location/Qualifiers

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/mol_type="genomic DNA"
/strain="TeSe-86"
/db_xref="taxon:119434"
rRNA <1..>1375
/product="16S ribosomal RNA"

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121 gctaatacg cataccatac caccactgga atgagtggta tgccaaacgc tccggcgccg
181 aaggatgtgg ctgcgggccg ttaggtagac ggtggggtta cgccccaccg tgccaataat
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301 acggggcgca gcaggcgca aacctttaca ctgcacgaca gtgcgatagg gggatcccaa
361 gtgcacagcg atagcgctg tgcttttca caccctaagg cgggtgcaga ataagggctg
421 ggcaagaccg gtccagccg ccgcggtat accgagcgc caagtgatgg ccgatcttat
481 tgggcctaaa gcgtccgtg ctggccacgc aagtccatcg ggaaatccac ctgccaaca
541 ggtggggccc cggtagaac tgcgtggctt gggaccgaa ggcgcgacgg gtacgtccgg
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661 acgcatccga cagtaggga cgaagccag ggtctcgaac cgattagat acccggttag
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1261 gattcgtag taatcgctg tcacaagcgc gcggtgaata cgtccctgct ccttgacac
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LOCUS MZ576848 1340 bp DNA linear BCT 21-JUL-2021
 DEFINITION *Halorubrum tebenquichense* strain TeSe-85 16S ribosomal RNA gene,
 partial sequence.
 ACCESSION MZ576848
 VERSION MZ576848 GI:2069852680
 KEYWORDS .
 SOURCE *Halorubrum tebenquichense*
 ORGANISM *Halorubrum tebenquichense*
 Archaea; Euryarchaeota; Stenosarchaea group; Halobacteria;
Haloferacales; Halorubraceae; Halorubrum.
 REFERENCE 1 (bases 1 to 1340)
 AUTHORS Lizama-Jimenez,C.
 TITLE Genus diversity of haloarchaeas in Laguna de Tebenquiche
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 1340)
 AUTHORS Lizama-Jimenez,C., Andrade,D., Campos,V. and Rosello-Mora,R.
 TITLE Direct Submission
 JOURNAL Submitted (19-JUL-2021) Tecnologia Medica, Universidad de
 Antofagasta, Av. Universidad de Antofagasta, Antofagasta,
 Antofagasta 1240000, Chile
 COMMENT Sequences were screened for chimeras by the submitter using
 Sequencher 4.8.

##Assembly-Data-START##
 Sequencing Technology :: Sanger dideoxy sequencing
 ##Assembly-Data-END##

FEATURES Location/Qualifiers
 source 1..1340
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 /mol_type="genomic DNA"
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 /product="16S ribosomal RNA"

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121 atgagtggta tgccaaacgc tccggcgccg aaggatgtgg ctgcggccga ttaggtagac
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241 gacggaatct gagacaagat tccgggcctt acggggcgca gcaggcgca aacctttaca
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361 caccctaagg cgggtgcaga ataagggctg ggcaagaccg gtgccagccg ccgcggtaat
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541 gggaccggaa ggcgcgacgg gtacgtccgg ggtaggagtg aaatcccgt atcctggacg
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 1201 ttgtgggctg caactgccc acatgaagct ggattcggtg gtaatcgctg gtcacaagcg
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LOCUS MZ576849 1342 bp DNA linear BCT 21-JUL-2021
 DEFINITION *Haloarcula* sp. strain TeSe-51 16S ribosomal RNA gene, partial
 sequence.
 ACCESSION MZ576849
 VERSION MZ576849 GI:2069852681
 KEYWORDS .
 SOURCE *Haloarcula* sp.
 ORGANISM *Haloarcula* sp.
 Archaea; Euryarchaeota; Stenosarchaea group; Halobacteria;
Halobacteriales; Haloarculaceae; Haloarcula; unclassified
Haloarcula.
 REFERENCE 1 (bases 1 to 1342)
 AUTHORS Lizama-Jimenez,C.
 TITLE Genus diversity of haloarchaeas in Laguna de Tebenquiche
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 1342)
 AUTHORS Lizama-Jimenez,C., Andrade,D., Campos,V. and Rosello-Mora,R.
 TITLE Direct Submission
 JOURNAL Submitted (19-JUL-2021) Tecnologia Medica, Universidad de
 Antofagasta, Av. Universidad de Antofagasta, Antofagasta,
 Antofagasta 1240000, Chile
 COMMENT Sequences were screened for chimeras by the submitter using
 Sequencher 4.8.

##Assembly-Data-START##
 Sequencing Technology :: Sanger dideoxy sequencing
 ##Assembly-Data-END##

FEATURES Location/Qualifiers
 source 1..1342
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 /mol_type="genomic DNA"
 /strain="TeSe-51"
 /db_xref="taxon:44098"
 rRNA <1..>1342
 /product="16S ribosomal RNA"

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 121 gtgccgagag ttagaactg tccggcgctg taggatgtgg ctgcggccga ttaggtagat
 181 ggtggggtaa cggccacca tgccgataat cggtacaggt tgtgagagca agaccggaga
 241 cggtatctga gacaagatac cgggccctac ggggcgcagc aggcgcgaaa cctttact

301 gcacgacagt gcgatagggg gactccgagt gtgagggcat atagccctcg cttttctgta
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421 cggcagtgca agtgatggcc gatattattg ggcctaaagc gtccgtagct gctggaagtc
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661 ccgattaga taccgggta gtcctggctg taaacaatgc tcgctaggtt gtcaccgcca
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LOCUS MZ576850 1316 bp DNA linear BCT 21-JUL-2021

DEFINITION *Haloarcula* sp. strain TeSe-41 16S ribosomal RNA gene, partial
sequence.

ACCESSION MZ576850

VERSION MZ576850 GI:2069852682

KEYWORDS .

SOURCE *Haloarcula* sp.

ORGANISM *Haloarcula* sp.

Archaea; Euryarchaeota; Stenosarchaea group; Halobacteria;

Halobacteriales; *Haloarculaceae*; *Haloarcula*; unclassified

Haloarcula.

REFERENCE 1 (bases 1 to 1316)

AUTHORS Lizama-Jimenez,C.

TITLE Genus diversity of haloarchaeas in Laguna de Tebenquiche

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 1316)

AUTHORS Lizama-Jimenez,C., Andrade,D., Campos,V. and Rosello-Mora,R.

TITLE Direct Submission

JOURNAL Submitted (19-JUL-2021) Tecnologia Medica, Universidad de

Antofagasta, Av. Universidad de Antofagasta, Antofagasta,

Antofagasta 1240000, Chile

COMMENT Sequences were screened for chimeras by the submitter using
Sequencher 4.8.

##Assembly-Data-START##

Sequencing Technology :: Sanger dideoxy sequencing

##Assembly-Data-END##

FEATURES Location/Qualifiers

source 1..1316

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    121 cgagagttag aaacgttccg gcgctgtagg atgtggctgc ggccgattag gtagatggtg
    181 gggtaacggc ccacatgcc gataatcggc acgggttgtg agagcaagac ccggagacgg
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    361 taagggtggt caggaacaag gactgggcaa gaccggtgcc agccgccgcg gtaataccgg
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    481 ggaaatcgac cgctaacgg tcggcgctcg gtggaaactc agcttggggc cgagactcac
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LOCUS      MZ576851          1362 bp  DNA   linear  BCT 21-JUL-2021
DEFINITION Haloarcula sp. strain ALT-23 16S ribosomal RNA gene, partial
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ACCESSION  MZ576851
VERSION    MZ576851 GI:2069852683
KEYWORDS   .
SOURCE     Haloarcula sp.
ORGANISM   Haloarcula sp.
            Archaea; Euryarchaeota; Stenosarchaea group; Halobacteria;
            Halobacteriales; Haloarculaceae; Haloarcula; unclassified
            Haloarcula.
REFERENCE  1 (bases 1 to 1362)
AUTHORS    Lizama-Jimenez,C.
TITLE      Genus diversity of haloarchaeas in Laguna de Tebenquiche
JOURNAL    Unpublished
REFERENCE  2 (bases 1 to 1362)
AUTHORS    Lizama-Jimenez,C., Andrade,D., Campos,V. and Rosello-Mora,R.
TITLE      Direct Submission
JOURNAL    Submitted (19-JUL-2021) Tecnologia Medica, Universidad de
            Antofagasta, Av. Universidad de Antofagasta, Antofagasta,
            Antofagasta 1240000, Chile
COMMENT     Sequences were screened for chimeras by the submitter using

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Sequencher 4.8.

##Assembly-Data-START##

Sequencing Technology :: Sanger dideoxy sequencing

##Assembly-Data-END##

FEATURES Location/Qualifiers
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 /mol_type="genomic DNA"
 /strain="ALT-23"
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rRNA <1..>1362
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ORIGIN

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121 gccaatagcg gatataactc tcaggctgga gtgcgagagt tagaaacgtt ccggcgctgt
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241 ggtacaggtt gtgagagcaa gagcctggag acggtatctg agacaagata ccgggcccta
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1321 tcaagcacc cgagtggggt ccgcatgagg ccgtcatgcy ac
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