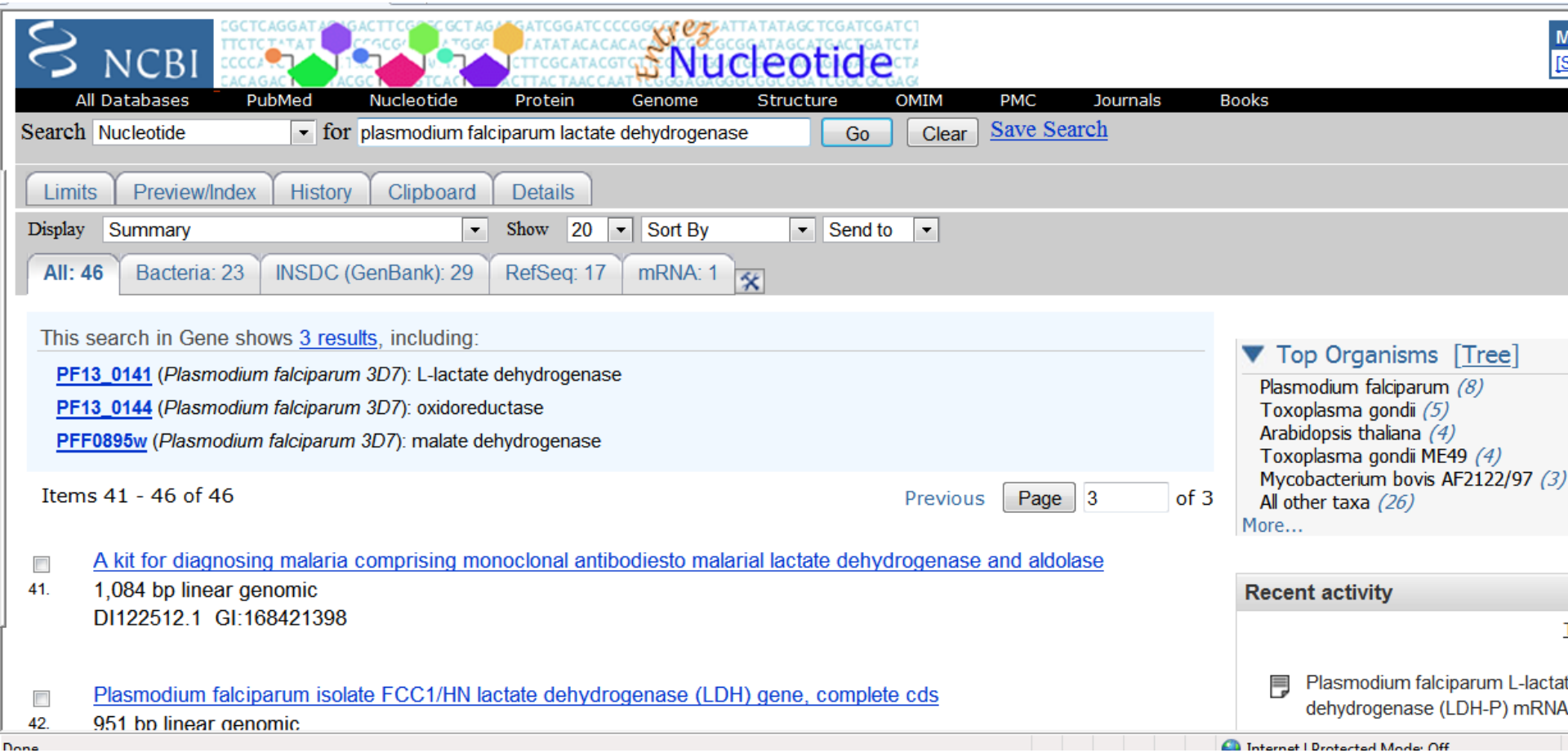
Nucleotide and Protein sequences

Nucleotide sequences.



plasmodium falciparum lactate dehydrogenase - ...

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42. Plasmodium falciparum isolate FCC1/HN lactate dehydrogenase (LDH) gene, complete cds
951 bp linear genomic
DQ825436.1 GI:111034850

Select this one

43. Plasmodium falciparum isolate FCBR L-lactate dehydrogenase (LDH) gene, complete cds
951 bp linear genomic
DQ198262.1 GI:76563842

44. Plasmodium falciparum isolate K1 L-lactate dehydrogenase (LDH) gene, complete cds
951 bp linear genomic
DQ198261.1 GI:76563840

45. Toxoplasma gondii malate dehydrogenase gene, complete cds
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46. Plasmodium reichenowi ldh gene for lactate dehydrogenase, complete cds
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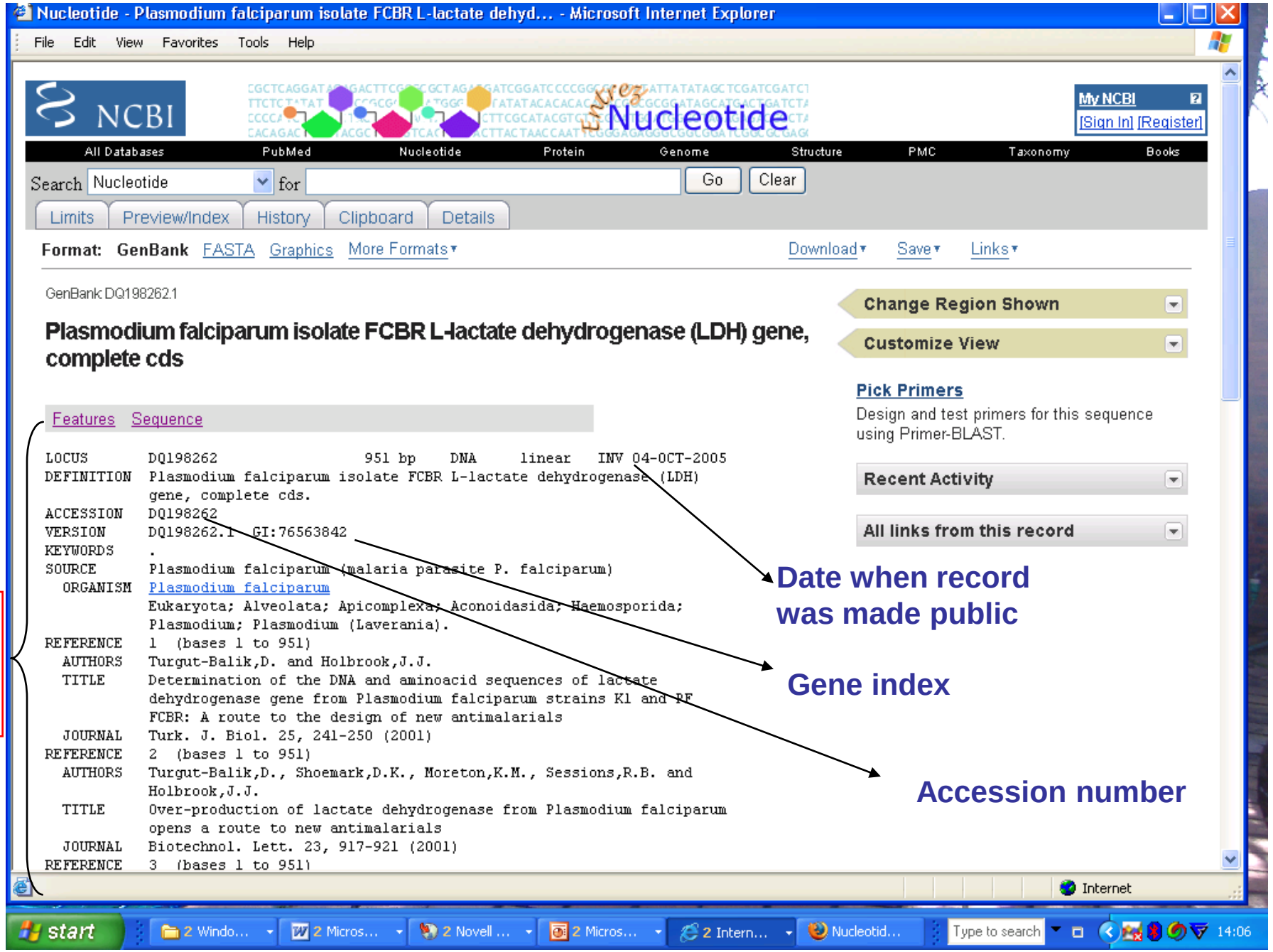
Done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Search Nucleotide for Go Clear
Limits Preview/Index History Clipboard Details
Format: GenBank FASTA Graphics More Formats
Download Save Links
GenBank: DQ198262.1
Plasmodium falciparum isolate FCBR L-lactate dehydrogenase (LDH) gene, complete cds
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DEFINITION Plasmodium falciparum isolate FCBR L-lactate dehydrogenase (LDH) gene, complete cds.
ACCESSION DQ198262
VERSION DQ198262.1 GI:76563842
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SOURCE Plasmodium falciparum (malaria parasite P. falciparum)
ORGANISM Plasmodium falciparum
Eukaryota; Alveolata; Apicomplexa; Aconoidasida; Haemosporida; Plasmodium; Plasmodium (Laverania).
REFERENCE 1 (bases 1 to 951)
AUTHORS Turgut-Balik,D. and Holbrook,J.J.
TITLE Determination of the DNA and aminoacid sequences of lactate dehydrogenase gene from Plasmodium falciparum strains K1 and RF FCBR: A route to the design of new antimalarials
JOURNAL Turk. J. Biol. 25, 241-250 (2001)
REFERENCE 2 (bases 1 to 951)
AUTHORS Turgut-Balik,D., Shoemark,D.K., Moreton,K.M., Sessions,R.B. and Holbrook,J.J.
TITLE Over-production of lactate dehydrogenase from Plasmodium falciparum opens a route to new antimalarials
JOURNAL Biotechnol. Lett. 23, 917-921 (2001)
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Pick Primers
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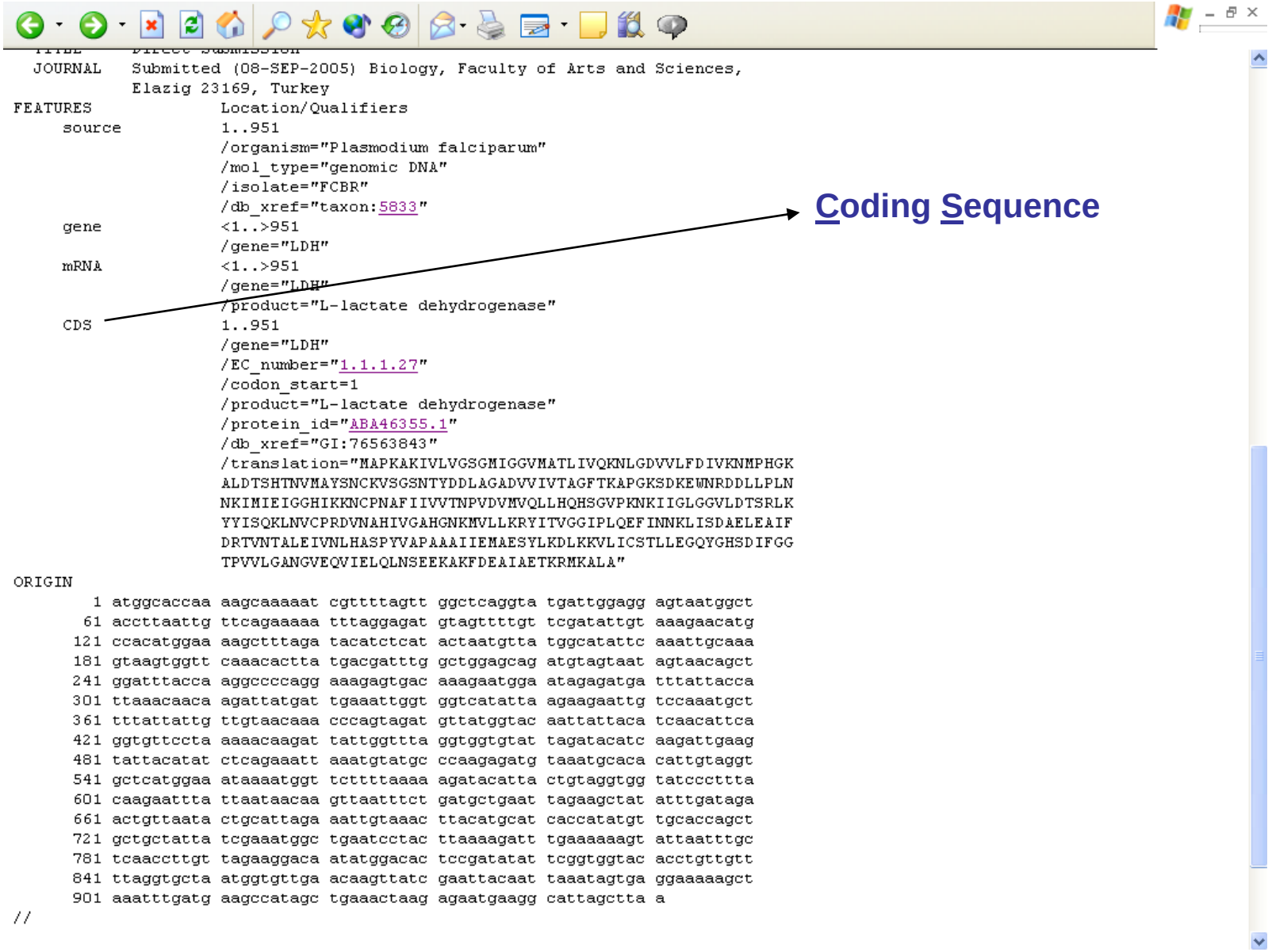

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Features

Sequence

Coding Sequence

DQ198262: Plasmodium falciparum LDH sequence.

- There are several IMPORTANT features given to you on the sequence page.

- *HEADER*
  - **DQ198262** is a UNIQUE number assigned to the Pf LDH gene sequence in a database.
    - Known as the: ACCESSION number (can have various versions: DQ198262.1)
  - **gi:76563842:** gene index identifies the current version
    - If sequence annotation is revised then the gi number changes but the accession number remains the same
  - LOCUS: Length of the sequence: **951bp**
  - DEFINITION: name of the sequence
  - SOURCE: Common name of Plasmodium falciparum (i.e. malaria parasite P. falciparum)
  - ORGANISM Plasmodium falciparum
    - More complete identification
    - Lineage: Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
    - The hyperlink takes you to the…TAXONOMY database

-REFERENCE: gives publication citation related to the sequence entry

- AUTHORS:Turgut-Balik,D., Shoemark,D.K., Moreton,K.M., Sessions,R.B. and Holbrook,J.J.
- TITLE Over-production of lactate dehydrogenase from Plasmodium falciparum opens a route to new antimalarials. JOURNAL Biotechnol. Lett. 23, 917-921 (2001).

- *FEATURES*
  - Information about gene, gene product and regions of biological significance
    - Coding sequence (CDS), mRNA, introns, exons
    - Enzyme Committee number. **E.C.**
    - Unique international identifier (eg: **1.1.1.27**)
    - Click on link to go to EXPASY website
  - Amino acid sequence number : ABA46355.1
    - Links to **Entrez Protein** database
  - The amino-acid sequence is given
- *SEQUENCE*
  - The DNA or base sequence is given. (Note: what is the base sequence of the first codon?)
  - **CDS (coding sequence**) starts with ATG (DNA) or AUG if mRNA

NiceZyme View of ENZYME: EC 1.1.1.27

Official Name

L-lactate dehydrogenase.

Alternative Name(s)

L-lactic acid dehydrogenase.

L-lactic dehydrogenase.

Reaction catalysed

(S)-lactate + NAD(+) <=> pyruvate + NADH

Comment(s)

- Also oxidizes other (S)-2-hydroxymonocarboxylic acids.
- NADP(+) acts, more slowly, with the animal, but not the bacterial, enzyme.

Cross-references

Biochemical Pathways; map number(s)	E6 ; H4
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BRENDA	1.1.1.27
PUMA2	1.1.1.27
PRIAM enzyme-specific profiles	1.1.1.27
KEGG Ligand Database for Enzyme Nomenclature	1.1.1.27
IUBMB Enzyme Nomenclature	1.1.1.27
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MetaCyc	1.1.1.27

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Q97MD1, LDH1_CLOAB; Q839C1, LDH1_ENTFA; Q5FMB0, LDH1_LACAC;

Features (Nucleotide database)

- Coding sequence (CDS)
- Ribosomal binding sites (RBS)
- Start/stop
- Promotor sequences
- Introns/exons
- Repeat regions etc.

- Remember:
  - Promotor – shows the position of the promoter box e.g. -35 for transcription
  - RBS is the ribosomal binding site
  - CDS stands for coding segment/sequence (i.e. open reading frame: ORF).

Edit View Favorites Tools Help

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Transcription

Shine Dalgarno (Translation)

dUTPase

GenBank DQ198262.1

Plasmodium falciparum isolate FCBR L-lactate dehydrogenase (LDH) gene, complete cds

Features Sequence

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DEFINITION  Plasmodium falciparum isolate FCBR L-lactate dehydrogenase (LDH)
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ACCESSION   DQ198262
VERSION     DQ198262.1  GI:76563842
KEYWORDS    .
SOURCE      Plasmodium falciparum (malaria parasite P. falciparum)
  ORGANISM  Plasmodium falciparum
            Eukaryota; Alveolata; Apicomplexa; Aconoidasida; Haemosporida;
            Plasmodium; Plasmodium (Laverania).
REFERENCE   1  (bases 1 to 951)
  AUTHORS   Turgut-Balik,D. and Holbrook,J.J.
  TITLE     Determination of the DNA and aminoacid sequences of lactate
            dehydrogenase gene from Plasmodium falciparum strains K1 and PF
            FCBR: A route to the design of new antimalarials
  JOURNAL   Turk. J. Biol. 25, 241-250 (2001)
REFERENCE   2  (bases 1 to 951)
  AUTHORS   Turgut-Balik,D., Shoemark,D.K., Moreton,K.M., Sessions,R.B. and
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  TITLE     Over-production of lactate dehydrogenase from Plasmodium falciparum
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  JOURNAL   Biotechnol. Lett. 23, 917-921 (2001)
REFERENCE   3  (bases 1 to 951)
  AUTHORS   Turgut-Balik,D., Moreton,K. and Holbrook,J.J.
  TITLE     Direct Submission
  JOURNAL   Submitted (08-SEP-2005) Biology, Faculty of Arts and Sciences,
            Elazig 23169, Turkey
FEATURES             Location/Qualifiers
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FASTA format

Default input format for sequence analysis software (nucleotide and protein) such as BLAST etc.

- For downloading the sequence click on **FASTA**
  - **COPY and PASTE** the information into an empty MS WORD document.
    NOTE: **FASTA** starts with the Gene index.
- Save as **text file** (no formatting)

- Case-sensitive: always use **CAPITAL** letters
- Use Courier font for easy alignment
- Format:
  >My_Sequence_Name → Definition line
  ARFDSHJDKKDMFSMNDN → Sequence

GenBank DQ198262.1

Plasmodium falciparum isolate FCBR L-lactate dehydrogenase (LDH) gene, complete cds

Features Sequence

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LOCUS       DQ198262                951 bp    DNA     linear   INV 04-OCT-2005
DEFINITION  Plasmodium falciparum isolate FCBR L-lactate dehydrogenase (LDH)
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ACCESSION   DQ198262
VERSION     DQ198262.1  GI:76563842
KEYWORDS    .
SOURCE      Plasmodium falciparum (malaria parasite P. falciparum)
  ORGANISM  Plasmodium falciparum
            Eukaryota; Alveolata; Apicomplexa; Aconoidasida; Haemosporida;
            Plasmodium; Plasmodium (Laverania).
REFERENCE   1  (bases 1 to 951)
  AUTHORS   Turgut-Balik,D. and Holbrook,J.J.
  TITLE     Determination of the DNA and aminoacid sequences of lactate
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            FCBR: A route to the design of new antimalarials
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  AUTHORS   Turgut-Balik,D., Moreton,K. and Holbrook,J.J.
  TITLE     Direct Submission
  JOURNAL   Submitted (08-SEP-2005) Biology, Faculty of Arts and Sciences,
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GenBank DQ198262.1

Plasmodium falciparum isolate FCBR L-lactate dehydrogenase (LDH) gene, complete cds

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Change Region Shown

Customize View

Pick Primers

Design and test primers for this sequence using Primer-BLAST.

Recent Activity

Turn Off Clear

gb|DQ198262.1| (951 lett...

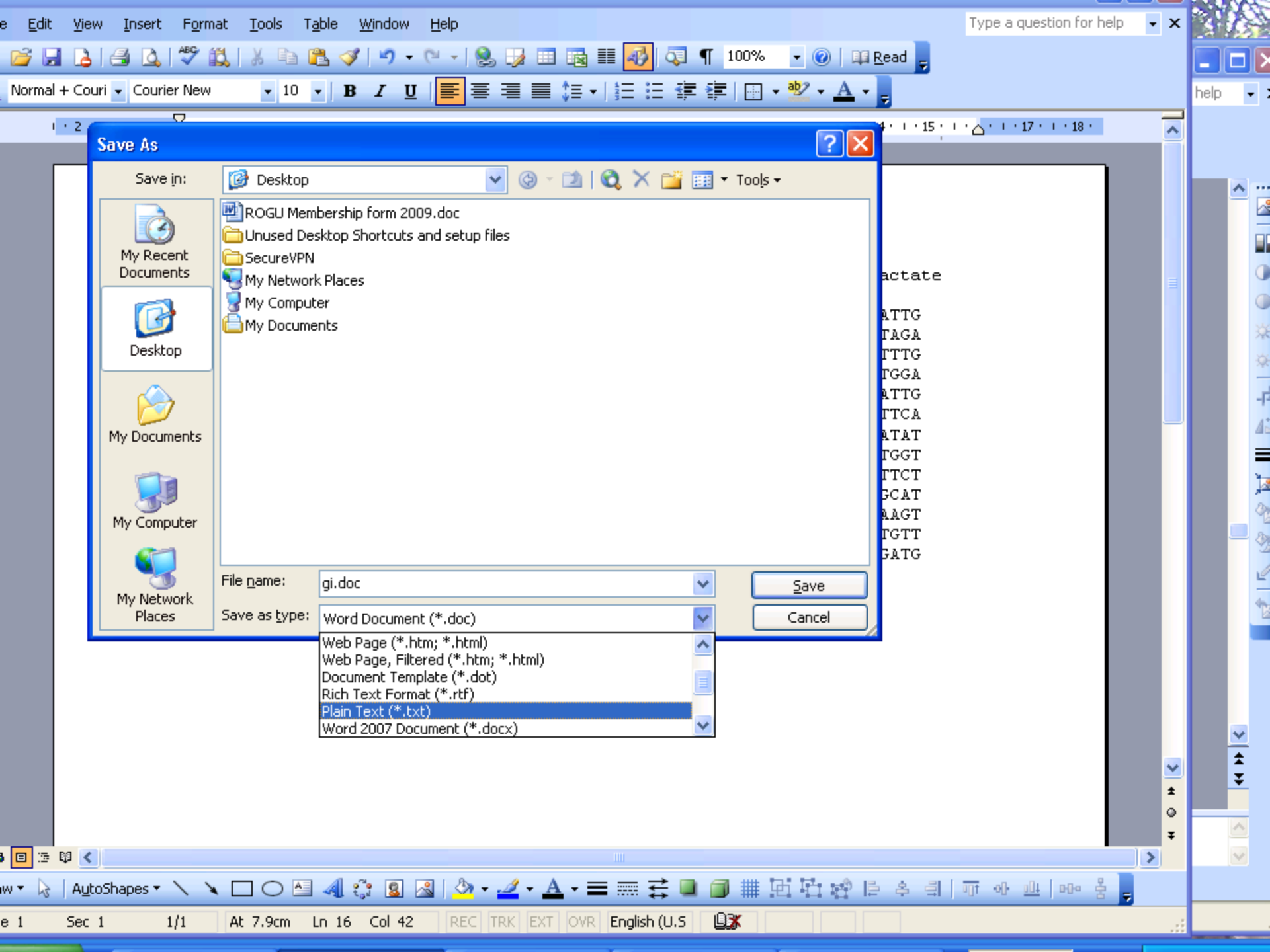
Plasmodium falciparum isolate FCBR L-lactate dehydrogenase (LDH) gene, complete cds

DQ198262 (1)

dDQ198262 (0) Nucleotide

Mus musculus SPARC-like 1 (Sparcl1), mRNA

All links from this record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Protein sequences

- NCBI Protein
  - Plasmodium falciparum lactate dehydrogenase
  - ABA46355.1
  - DQ198262.
- Retrieve the protein sequence from the EXPASY website (Expert Protein Analysis System)
  - WWW.EXPASY.CH

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  AUTHORS   Turgut-Balik,D., Shoemark,D.K., Moreton,K.M., Sessions,R.B. and
            Holbrook,J.J.
  TITLE     Over-production of lactate dehydrogenase from Plasmodium falciparum
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  AUTHORS   Turgut-Balik,D., Moreton,K. and Holbrook,J.J.
  TITLE     Direct Submission
  JOURNAL   Submitted (08-SEP-2005) Biology, Faculty of Arts and Sciences,
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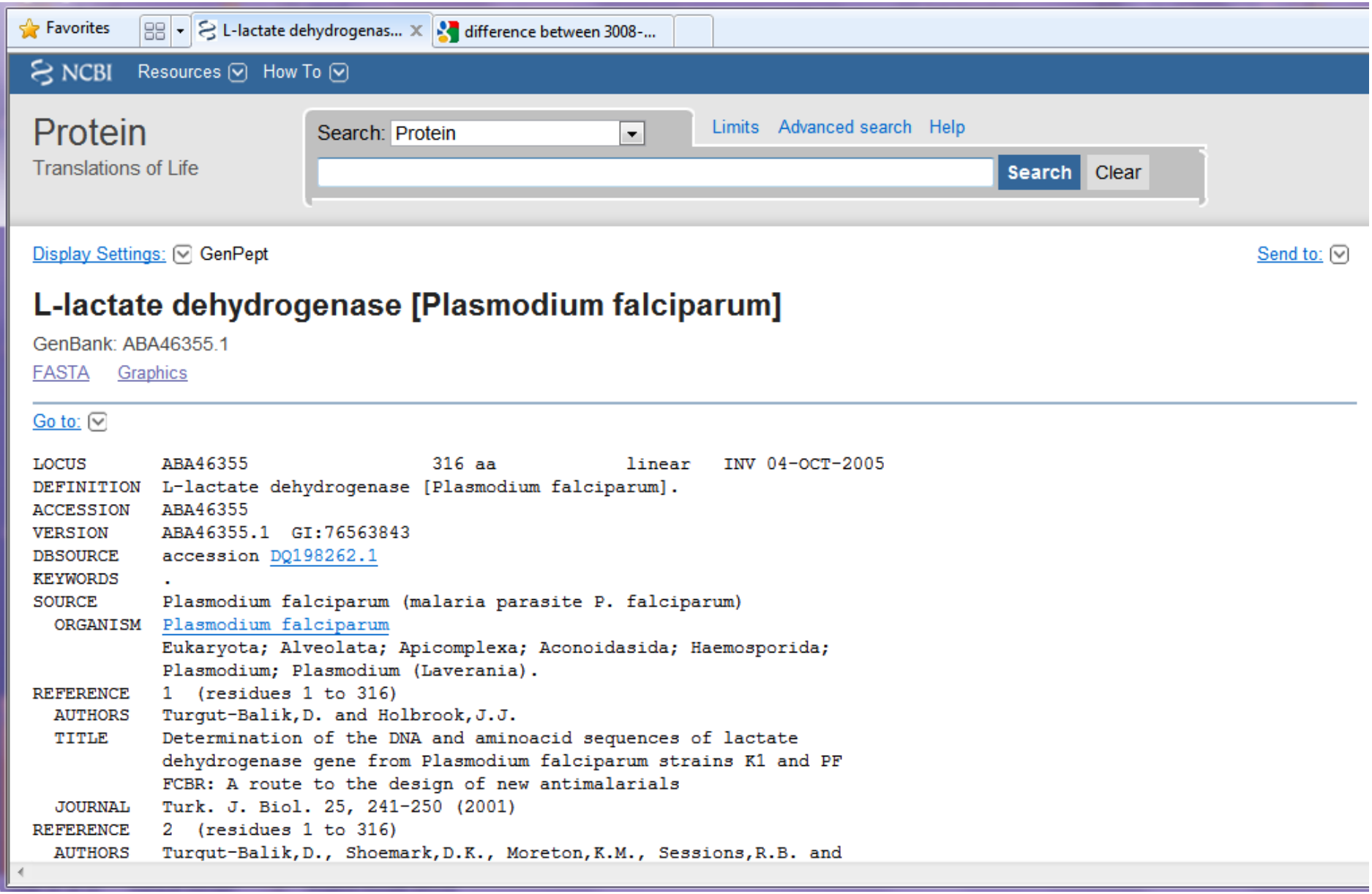
Entrez Protein



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       61 vsgsntyddl agadvvivta gftkapgksd kewnrddllp lnnkimieig ghikkncpna
      121 fiivvtnpvd vmvqllhqhs gvpknkiigl ggvldtsrlk yyisqklnvc prdvnahivg
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