Volume 15 Number 24 1987 Nucleic Acids Research

Nucleotide sequence of the homoserine dehydrogenase (*thr* A) gene of *Brevibacterium lactofermentum*

Luis M.Mateos, Gustavo del Real, Alfredo Aguilar and Juan F.Martín

Area de Microbiología, Facultad de Biología, Universidad de León, León 24071, Spain
Submitted October 15, 1987 Accession no.Y00476

A 9.0 Kb fragment containing the thr A and thr B genes of B. lactofermentum ATCC 13869 was cloned[1]. The nucleotide sequenceof the thr B gene has been reported previously[2]. We describe here the nucleotide sequence of the thr A gene located in a 1483 bp DNA fragment. The nucleotides are numbered from a Kpn I restriction site located near the 5'-end of the gene. The iniciation and termination codons are underlined.

```
                                                                  m  t  s  a
GGTACCCTTTTTGTTTTGGACACATGTAGGGTGGCCGAAACAAAGTAATAGGACAACAACGCTCGACCGCGATTATTTTTGGAGAATCATGACCTCAGCA
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 100
 s  a  p  s  f  n  p  g  k  g  p  g  s  a  v  g  i  a  l  l  g  f  g  t  v  g  t  e  v  m  r  l  m  t
TCTGCCCCAAGCTTTAACCCCGGCAAGGGTCCCGGCTCAGCAGTCGGAATTGCCCTTTTAGGATTCGGAACAGTCGGCACTGAGGTGATGCGTCTGATGA
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 200
  e  y  g  d  e  l  a  h  r  i  g  g  p  l  e  v  r  g  i  a  v  s  d  i  s  k  p  r  e  g  v  a  p
CCGAGTACGGTGATGAACTTGCGCACCGCATTGGTGGCCCACTGGAGGTTCGTGGCATTGCTGTTTCTGATATCTCAAAGCCACGTGAAGGCGTTGCACC
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 300
  e  l  l  t  e  d  a  f  a  l  i  e  r  e  d  v  d  i  v  v  e  v  i  g  g  i  e  y  p  r  e  v  v
TGAGCTGCTCACTGAGGACGCTTTTGCACTCATCGAGCGCGAGGATGTTGACATCGTCGTTGAGGTTATCGGCGGCATTGAGTACCCACGTGAGGTAGTT
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 400
 l  a  a  l  k  a  g  k  s  v  v  t  a  n  k  a  l  v  a  a  h  s  a  e  l  a  d  a  a  e  a  a  n  v
CTCGCAGCTCTGAAGGCCGGCAAGTCTGTTGTTACCGCCAATAAGGCTCTTGTTGCAGCTCACTCTGCTGAGCTTGCTGATGCAGCGGAAGCCGCAAACG
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 500
  d  l  y  f  e  a  a  v  a  g  a  i  p  v  v  g  p  l  r  r  s  l  a  g  d  q  i  q  s  v  m  g  i
TTGACCTGTACTTCGAGGCTGCTGTTGCAGGCGCAATTCCAGTGGTTGGCCCACTGCGTCGCTCCCTGGCTGGCGATCAGATCCAGTCTGTGATGGGCAT
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 600
 v  n  g  t  t  n  f  i  l  d  a  m  d  s  t  g  a  d  y  a  d  s  l  a  e  a  t  r  l  g  y  a  e
CGTTAACGGCACCACCAACTTCATCTTGGACGCCATGGATTCCACCGGCGCTGACTATGCAGATTCTTTGGCTGAGGCAACTCGTTTGGGTTACGCCGAA
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 700
 a  d  p  t  a  d  v  e  g  h  d  a  a  s  k  a  a  i  l  a  s  i  a  f  h  t  r  v  t  a  d  d  v  y
GCTGATCCAACTGCAGACGTCGAAGGCCATGACGCCGCATCCAAGGCTGCAATTTTGGCATCCATCGCTTTCCACACCCGTGTTACCGCGGATGATGTGT
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 800
  c  e  g  i  s  n  i  s  a  a  d  i  e  a  a  q  q  a  g  h  t  i  k  l  l  a  i  c  e  k  f  t  n
ACTGCGAAGGTATCAGCAACATCAGCGCTGCCGACATTGAGGCAGCACAGCAGGCAGGCCACACCATCAAGTTGTTGGCCATCTGTGAGAAGTTCACCAA
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 900
 k  e  g  k  s  a  i  s  a  r  v  h  p  t  l  l  p  v  s  h  p  l  a  s  v  n  k  s  f  n  a  i  f
CAAGGAAGGAAAGTCGGCTATTTCTGCTCGCGTGCACCCGACTCTATTACCTGTGTCCCACCCACTGGCGTCGGTAAACAAGTCCTTTAATGCAATCTTT
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 1000
 v  e  a  e  a  a  g  r  l  m  f  y  g  n  g  a  g  g  a  p  t  a  s  a  v  l  g  d  v  v  g  a  a  r
GTTGAAGCAGAAGCAGCTGGTCGCCTGATGTTCTACGGAAACGGTGCAGGTGGCGCGCCAACCGCGTCTGCTGTGCTTGGCGACGTCGTTGGTGCCGCAC
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 1100
  n  k  v  h  g  g  r  a  p  g  e  s  t  y  a  n  l  p  i  a  d  f  g  e  t  t  t  r  y  h  l  d  m
GAAACAAGGTGCACGGTGGCCGTGCTCCAGGTGAGTCCACCTACGCTAACCTGCCGATCGCTGATTTCGGTGAGACCACCACTCGTTACCACCTCGACAT
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 1200
 d  v  e  d  r  v  g  v  l  a  e  l  a  s  l  f  s  e  q  g  i  s  l  r  t  i  r  q  e  e  r  d  d
GGATGTGGAAGATCGCGTGGGCGTTTTGGCTGAATTGGCTAGCCTGTTCTCTGAGCAAGGAATCTCCCTGCGTACAATCCGACAGGAAGAGCGCGATGAT
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 1300
 d  a  r  l  i  v  v  t  h  s  a  l  e  s  d  l  s  r  t  v  e  l  l  k  a  k  p  v  v  k  a  i  n  s
GATGCACGTCTGATCGTTGTCACGCACTCTGCGCTGGAATCTGATCTTTCCCGCACCGTTGAACTGCTGAAGGCTAAGCCTGTTGTTAAGGCAATCAACA
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+ 1400
  v  i  r  l  e  r  d  .
GTGTGATCCGCCTCGAAAGGGACTAATTTTACTGACATGGCAATTGAACTGAACGTCGGTCGTAAGGTTACCGTCACGGTACC
----.----+----.----+----.----+----.----+----.----+----.----+----.----+----.----+--- 1483
```

REFERENCES

1. Mateos et al. (1987). Mol. Gen. Genet. 206, 361-367.
2. Mateos et al. (1987). Nucleic Acids Res. 15, 3922.

