Volume 15 Number 12 1987 **Nucleic Acids Research**

Complete sequence of mouse S6 ribosomal protein

Jean-Louis Lalanne, Miguel Lucero[1] and Jean-Michel le Moullec

Roussel-Uclaf Recherches Biotechnologiques, 111 route de Noisy, 93230 Romainville and [1]INSERM U255, Institut Curie, 26 rue d'Ulm, 75231 Paris, France

Submitted May 14, 1987 Accession no. Y00348

We report the nucleotide (and deduced aminoacid) sequence of mouse S6 ribosomal protein. This sequence was determined on both strands of full length cDNA clones isolated from a library made from T2D4 cells (1) poly(A)+ RNA. The protein was identified by computer analysis of NBRF data bank using CITI2 software (2) due to its homology (60% overall - identical aminoacids are shown below in uppercase letter) with yeast S10 ribosomal protein (3); it fits published partial aminoacid sequences of rat S6, which cover respectively the NH2-terminus (4), and the sites of phosphorylation by cAMP-dependent protein kinases (5) located at the COOH-terminus. Since S6 is a substrate for several kinases (4), this sequence could help to locate phosphorylated aminoacids.

```
                                 M  K  L  N  I  S  f  P  a  t
TGACGCCTCCCAGGCGCTCGGCTGTGTCAAGATGAAGCTGAACATCTCCTTCCCCGCCAC  60
 G  c  Q  K  l  i  E  v  D  D  E  r  k  l  R  t  F  y  e  K
CGGCTGTCAGAAGCTCATCGAGGTGGATGACGAGCGCAAGCTCCGCACCTTCTATGAGAA 120
 R  m  a  t  E  V  a  a  d  A  l  G  e  E  w  K  G  Y  V  v
GCGCATGGCCACGGAAGTAGCCGCTGATGCTCTTGGTGAAGAGTGGAAGGGTTATGTGGT 180
 r  I  S  G  G  N  D  K  Q  G  F  P  M  K  Q  G  V  L  t  h
CCGGATCAGCGGTGGGAATGACAAGCAAGGTTTTCCCATGAAGCAAGGTGTTCTGACCCA 240
 g  R  v  r  L  L  L  s  K  g  h  S  C  Y  R  P  R  R  t  G
TGGCAGAGTGCGCCTGCTGTTGAGTAAGGGGCATTCCTGTTACAGGCCAAGGAGAACTGG 300
 E  R  K  R  K  S  V  R  G  c  I  V  d  a  n  L  s  V  L  n
AGAGAGGAAGCGCAAGTCTGTTCGTGGATGCATTGTGGACGCTAATCTCAGTGTTCTCAA 360
 L  V  I  V  K  K  G  E  k  d  i  p  G  L  T  D  T  T  V  P
CTTGGTCATTGTAAAGAAAGGAGAGAAGGATATTCCTGGACTGACAGACACTACTGTGCC 420
 r  R  L  G  P  K  R  A  s  r  I  R  K  l  F  n  L  S  K  E
TCGTCGGTTGGGACCTAAAAGGGCTAGTAGAATCCGCAAGCTTTTTAATCTCTCCAAAGA 480
 D  D  V  R  q  y  V  v  R  k  p  l  n  K  e  G  k  K  p  r
AGATGATGTCCGCCAGTATGTTGTCAGGAAGCCCTTAAACAAAGAAGGTAAGAAGCCCAG 540
 T  K  A  P  K  I  Q  R  L  V  T  p  r  v  L  Q  h  K  R  r
GACCAAAGCACCCAAGATTCAGCGACTTGTTACTCCTCGTGTCCTGCAACACAAACGCCG 600
 r  i  A  L  K  k  q  r  t  k  k  n  k  E  e  A  A  E  Y  A
ACGTATTGCTCTGAAGAAGCAACGCACTAAGAAGAACAAGGAGGAGGCTGCAGAATACGC 660
 k  L  L  A  K  R  m  k  E  a  K  e  k  r  q  E  q  i  a  k
TAAACTTTTGGCCAAGAGAATGAAGGAAGCCAAAGAAAAGCGCCAGGAACAGATTGCCAA 720
 r  R  R  l  S  S  L  r  A  s  t  s  k  s  e  s  s  q  k
GAGACGTAGGCTGTCCTCACTGAGAGCTTCTACTTCTAAGTCTGAGTCCAGTCAAAAATG 780
AGTCTTTAAGAGCAACAAATAAATAATGACCTTGAATCTTT(A)n                821
```

References :
1. Neauport-Sautes, C. et al. (1979) Nature 277, 656-659
2. Dumas,J.P. and Ninio,J. (1982) Nucleic Acids Res. 10, 197-206
3. Leer, J.L. et al. (1982) Nucleic Acids Res. 10, 5869-5878
4. Wool, I.G. (1979) Ann. Rev. Biochem. 48, 719-754
5. Morgan,F.J. et al. (1984) J. Biol. Chem. 259, 2084-2091