

Nucleotide sequence of the cDNA of a bovine 70 kilodalton heat shock cognate protein

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The 70 kD heat shock cognate proteins (HSC70s) are constitutive members of the 70 kD heat shock related protein family. We have sequenced the cDNA of a bovine HSC70: clones were isolated from a bovine brain cDNA library in λ gt10 (1) by hybridization with probes derived from a rat HSC70 cDNA clone (2); one full-length clone was sequenced. The deduced amino acid sequence matches CNBr-generated peptide sequence of purified bovine brain hsc70 and is strikingly similar to that of rat HSC70 (2), differing at only 3 positions.

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-34 .....CTCTTCAGCAGCCGGCCTACGCTTTTGCAACC
1  ATGTCTAAAGGACCTGCAGTTGGCATTGATCTTGGCACCACCTATTCTTGTGTGGGTGTC
61  TTCCAGCACGGAAAGGTGGAATAATTGCCAATGATCAGGGGAACCGAACCCCAAGC
121 TATGTCGCCTTTACTGATACCGAACGGTTAATCGGTGATGCAGCAAAGAACCAAGTCGCA
181 ATGAATCCCACCAACACGGT'TTTTGATGCCAAACGACTTATTTGGACGTAGATTTGATGAT
241 GCTGTTGTCCAGTCTGATATGAAACATTGGCCCTTCATGGTGGTGAATGATGCTGGCAGG
301 CCTAAGGTTCAAGTAGAATACAAGGGAGAGACAAAGAGTTT'TACCCAGAGGAGGTGTCA
361 TCCATGGTCCCTGACAAAGATGAAGGAAATCGCAGAAGCCTACCTTGGGAAGACGGTTACC
421 AACGCTGTCGTCACAGTACCTGCCTATTTTAAATGACTCTCAGCGTCAGGCTACCAAAGAT
481 GCTGGAACATTTGCTGGTCTCAACGTACTTCAATCATCAATGAGCCAACTGCTGCTGCT
541 ATTGCTATGGCTTAGACAAAAAGGTTGGAGCAGAAAGAAACGTGCTGATCTTTGATTTA
601 GGGGTGGCAC'TTTGATGTGTCAATCCTCACTATTGAGGATGGAATCTTTGAGGTCAA
661 TCTACAGCTGGAGATACTCACTTGGGTGGAGAAGACTTTGACAACCGCATGGTTAACCAT
721 TTTATTGCGGAGTTCAAGCGTAAACACAAGAGGATATCAGTGAAAACAAGAGGGCTGTC
781 CGTCGTCTCCGTAAGTCTGTTGTGAGCGTGTAAAGCGCACTCTCTTCCAGCACCCAGGCC
841 AGTATTGAGATTGATTCCTCTATGAAGGAATCGACTTCTATACCTTATACCCGTGCC
901 CGATTTGAAGAATTGAATGCTGACTTGTTCGGTGGCACCCCTGGACCTGTGGAGAAGGCC
961 CTTAGGGATGCCAAACTGGACAAGTCTCAGATTCATGATATTGTCTTGGTTGGTGGCTCA
1021 ACCCGTATCCCAAGATTTCAGAACTTCTCCAGGACTTCTTCAACGGGAAAGAAGTGAAT
1081 AAGAGCATCAACCCTGATGAGGCTGTTGCATATGGTGCAGCTGTCCAGGCAGCCATTTTG
1141 TCTGGAGACAAATCTGAAAATGTTCAAGACTTGCTGCTGTTGGATGTCACCTCTTTCC
1201 CTTGGAATTGAACTGCTGGTGGAGTCATGACTGTCTCATCAAGCGCAATACTACCATT
1261 CCTACCAAGCAGACGCAGACTTTCACCACCTACTCTGACAACCAGCCTGGTGTGCTCATT
1321 CAGGTTTATGAAGGTGAGCGTGCCATGACCAAGGATAACAACCTGCTTGGCAAGTTTGAA
1381 CTCACGGGCATTCCTCCTGCCCCCGTGGTGTTCCTCAGATTGAAGTCACTTTTGATATT
1441 GATGCCAATGGCATCCTCAATGTTTCTGCTGTGGATAAGAGCACAGGAAAAGAGAACAAG
1501 ATTACCATCACTAATGACAAGGGCCGCTTGAGCAAAGAAGACATTGAACGCATGGTTCAA
1561 GAAGCAGAGAAGTACAAAGCTGAAGATGAGAAGCAGCGGGACAAGGTGTCTTCAAAGAA
1621 TCGCTTAAATCCTACGCCTTCAACATGAAAGCTACTGTTGAGGATGAGAACTTCAGGGC
1681 AAGATTAATGATGAAGACAAACAGAAGATTCTTGACAAGTGAATGAAATAATCAACTGG
1741 CTGGATAAGAACCAGACTGCAGAGAAGGAAGAAATTGAACATCAGCAGAAGGAGCTGGAA
1801 AAAGTCTGCAACCCCATCATACCAAGCTGTACCAGAGTGCAGGAGGCATGCTGGGGGA
1861 ATGCCAGGAGGAATGCCTGGGGGCTTCCCTGGTGGAGCTCCTCCATCAGGTGGTGGC
1921 TCCTCTGGGCCACCATTGAAGAGGTTGATTAAGCCAGCCTAGCATAGATTGAGCATTGT
1981 TCCACAAAAACATGGAAGGACCCAAATTGT

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