

Sequence of the rat  $\beta$ -globin mRNA

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cDNA library was prepared from mRNA which was obtained from erythroid cells of rats (ACI) treated with phenylhydrazine. A clone (pBR $\beta$ G) containing a full length of mRNA for  $\beta$ -globin in the library was isolated. Nucleotide sequencing was performed by the method of Maxam and Gilbert. The 5' cap site sequence was determined by the primer extension method. Reported  $\beta$ -globin amino acid sequence (1) of rat (Wister) is shown under the translated amino acid sequence.

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CATTGCTTC TGATACTGTT GTGTTGACTC GCAACCTCAG GAACAGACAC CATGGTGCAC CTAACTGATG
                                         V H L T D A
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CTGAGAAGGC TACTGTTAGT GGCCTGTGGG GAAAGGTGAA TGCTGATAAT GTTGGCGCTG AGGCCCTGGG
E K A T V S G L W G K V N A D N V G A E A L G
-----A-----N-----P-----D-----G-----
CAGGCTGCTG GTTGTCTACC CTTGGACCCA GAGGTA CTTT TCTAAATTTG GGGACCTGTC CTCTGCCTCT
R L L V V Y P W T Q R Y F S K F G D L S S A S
-----D--S-----
GCTATCATGG GTAACCCCA GGTGAAGGCC CATGGCAAGA AGGTGATAAA TGCCTTCAAT GATGCCTGA
A I M G N P Q V K A H G K K V I N A F N D G L K
-----K-----
AACACTTGGA CAACCTCAAG GGCACCTTTG CTCATCTGAG TGAACCTCAC TGTGACAAGC TGCATGTGGA
H L D M L K G T F A H L S E L H C D K L H V D
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TCCTGAGAAC TTCAGGCTCC TGGGCAATAT GATTGTGATT GTGTTGGGCC ACCACCTGGG CAAGGAATTC
P E N F R L L G N M I V I V L G H H L G K E F
-----
ACCCCTGTG CACAGGCTGC CTTCCAGAAG GTGGTGGCTG GAGTGGCCAG TGCCTGGCT CACAAGTACC
T P C A Q A A F Q K V V A G V A S A L A H K Y H
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ACTAAACCTC TTTTCTGCT CTTGTCTTTG TGCAATGGTC AATTGTTCCC AAGAGAGCAT CTGTCAGTTG
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TTGTCAAAT GACAAAGACC TTTGAAAATC TGCCTACTA ATTAAGGCA TTTACTTTCA CTGcpoly (A)

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1. Garrick, L.M., Sloan, R.L., Ryan, T.W., Klonowski, T.J. and Garrick, M.D. (1978) *Biochem. J.* **173**, 321-330.