

ANOTHER CANDIDATE IG KAPPA-LIKE GENE IN THE SEA STAR *A. RUBENS*

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ABSTRACT

In a recent paper we have shown that Ig Kappa genes (region MOPC 63, region K2), of 250 nucleotides each, were present in the sea star *Asterias rubens*. Two years later, a 697 nucleotide Ig Kappa chain V-V region K2 gene was accentuated.

Keywords: Sea Star, Igkappa Gene

1. INTRODUCTION

Like in 2011, we used sea stars, after immunizations to HRP (Horse-radish Peroxydase), to study their genomes. Experimental methods were the same than those chosen, at that time (Leclerc *et al.*, 2011; 2013a).

2. RESULTS

Briefly, we translate the obtained transcriptome of Assimilated Ig kappa chain V-V region K2, its sequence and just under, its characteristics:

2.1. Sequence

Locus_7375_Transcript_1_1_Confidence_1.000_Len
gth_697

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TTCAGATTCAGAAACACATGTATTTCCATACTTC
TATGAAGAAGTACGACAAGTACATCTTTGCTAA
GTTTCATTTAATCTGACTATTAACCTTAAACTTTT
TGTCGTTTCGATGACGTCACATCGTTGGATGAAG
CAAGTGGTCCACGAGTTCAACACTCTTTTGAAGT
CAACAAAACCTTCAACAAAGACTTTAAAACCCCTT
TTACGAGTTTAAACACAGCATCAAGTGAAGATGT
TCCTAATAGCTTTTTCGGTGTCTTCTCTGTTGTGT
TACGGAGGGAGAGCGTGTGATCTCACGGGCCAG
CCAATGGATGTCGTGGCTGAGGTAGGAGCGGAG
GCAATACTTACCTGTCCAACCTGACTTAGAGGAG
TGCACGGCCAATTGTAAGGTTTCATGGTATCTTC
TGAAGAATAAGACATATACACCGATTAGTTCAT
GTAAACAAGTTTATGAGAATTTGAAAACAGGT
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TTTCAATATCTGGTGGTCCCAACTGGACTCTTAC
TCTCAGCGGAGTTGAGCCGAATGATGCTCGCAA
ATACAGGTGCAAGGTAAAGAGTAATGAAACAA
AACCAGCAACTTCAGAAAGCATGACACTCATT
TACCATCAACCATCAACATTACGTTGAGTGCAG
CATCTTCTCAAATAACTGGTAGGGGAAGTGGTG
TCTTTACATGCCATGCTAAAAACACGAAAGG.
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2.2. Characteristics

>sp|P01635.1|KV5A3_MOUSE RecName: Full = Ig kappa chain V-V region K2; Flags: Precursor Length = 115 Score = 35.4 bits (80), Expect = 0.005 Identities = 27/101 (27%), Positives = 45/101 (45%), Gaps = 8/101 (8%) Frame = +3.

3. CONCLUSION

At the beginning of the year 2013, we had found a first candidate IgK like gene (Leclerc *et al.*, 2013b) which possessed an IgSF domain. We supposed that this gene was implicated in the response to the antigen HRP like this one described above. In fact we don't know, at the moment, if there are 2 candidate genes or more, in response to HRP. The "Avenir" would say us that. As for the probability that we have in front of us an immunoglobuline: There is 50% whether it is an immunoglobuline sensu stricto and 50% that it is an Ig-like. On the other hand there is also a very high degree of probability that it is an Ig kappa chain (Marchler-Bauer *et al.*, 2011).

In conclusion we hope that the scientific community has a look on this discovery.

4. REFERENCES

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