



CRC

for

Premium

Quality

Wool

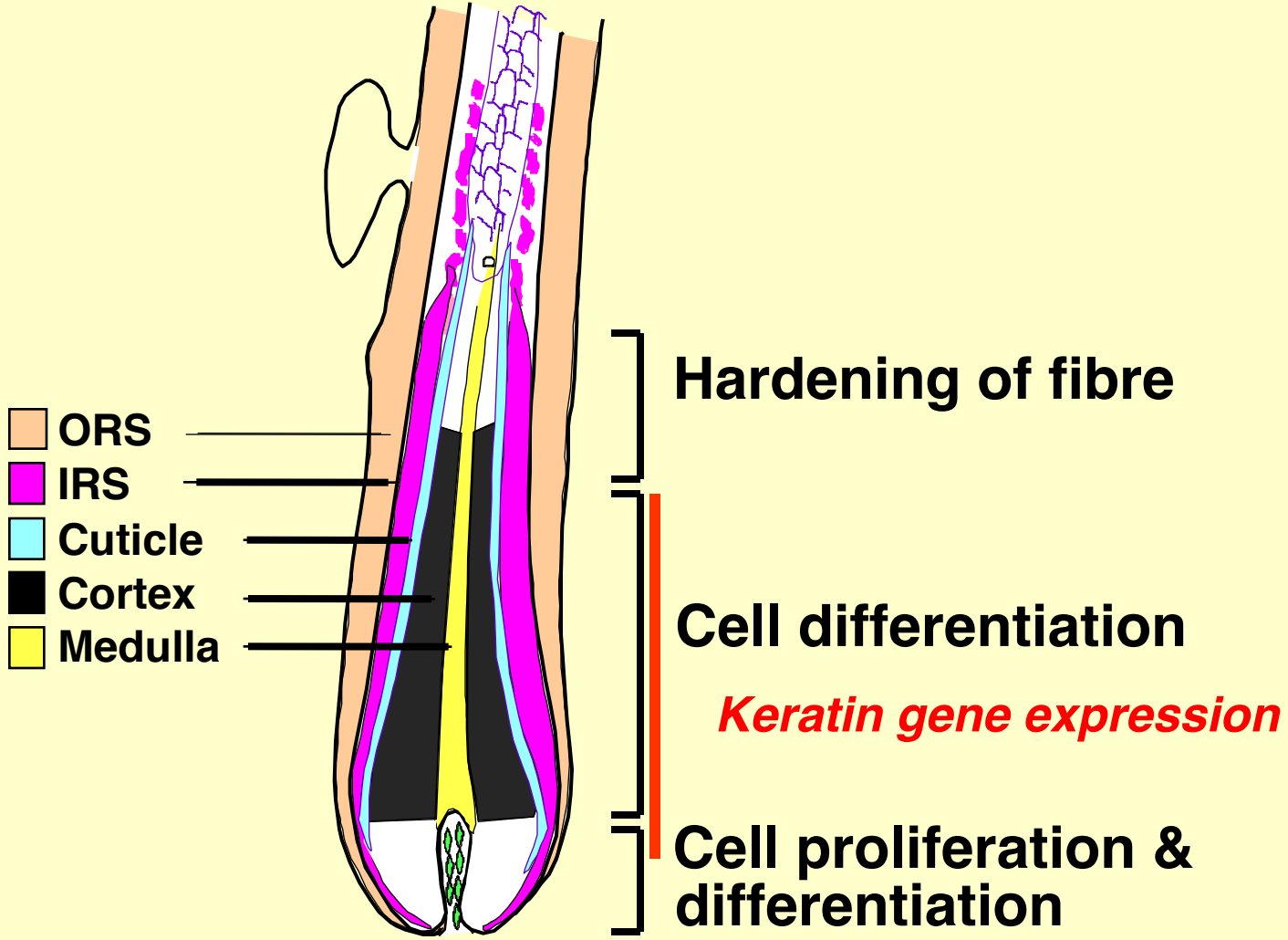
Keratin IF genes

Produced for the CRC for Premium Quality Wool undergraduate program by;
Dr. Barry Powell & Dr. C. Simon Bawden, The University of Adelaide.



Follicle Structure

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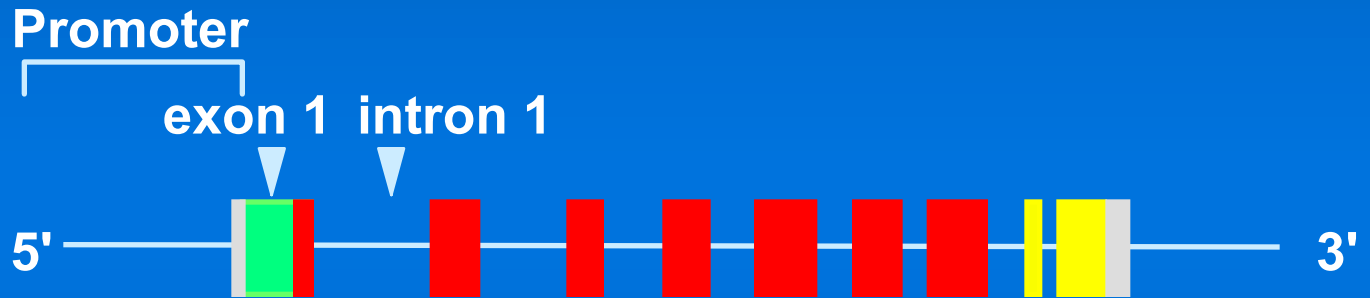


The Wool IF Type II Gene, K2.10

6 kb in size

9 exons

8 introns



5' noncoding

coding

3' noncoding



N-terminal domain



α-helical domain

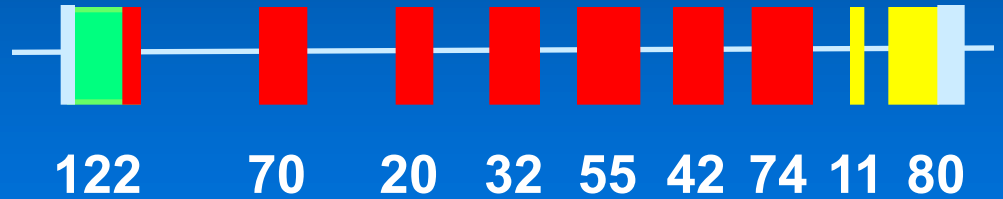


C-terminal domain



K2.10 Wool IF Gene Makes Protein

K2.10 gene



K2.10 mRNA



K2.10 protein



506 amino acids

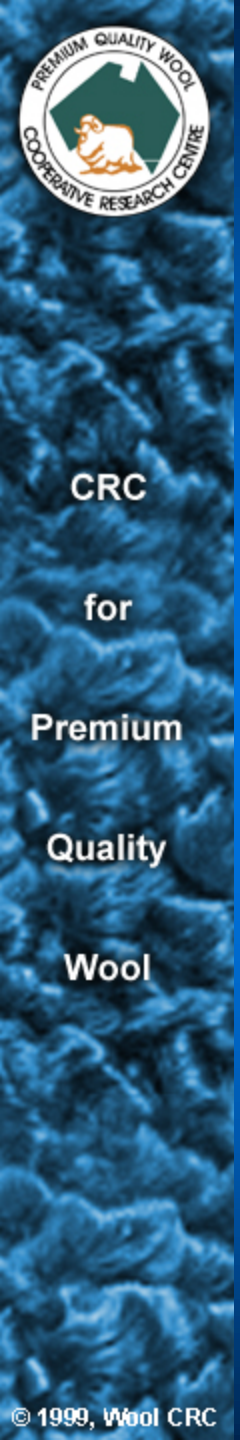
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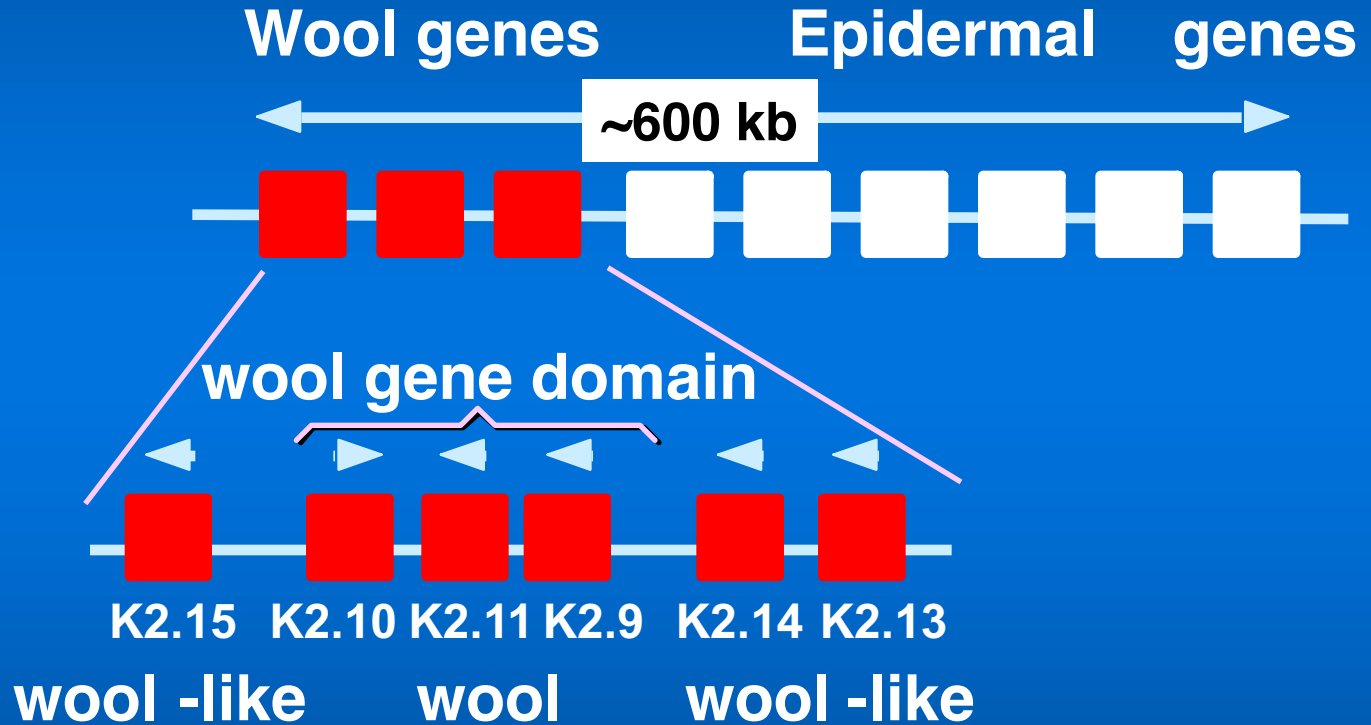
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Keratin IF Type II Locus

20 - 30 genes





Comparative Chromosomal Localisations of Keratin Genes

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Hox-2
Rar- ✓
Keratin type I IF
Wnt-3
Growth Hormone

Hox-3
Rar- ■
Keratin type II IF
Wnt-1

