CRC for Premium Quality Wool

IF Superfamily

Produced for the CRC for Premium Quality Wool undergraduate program by;
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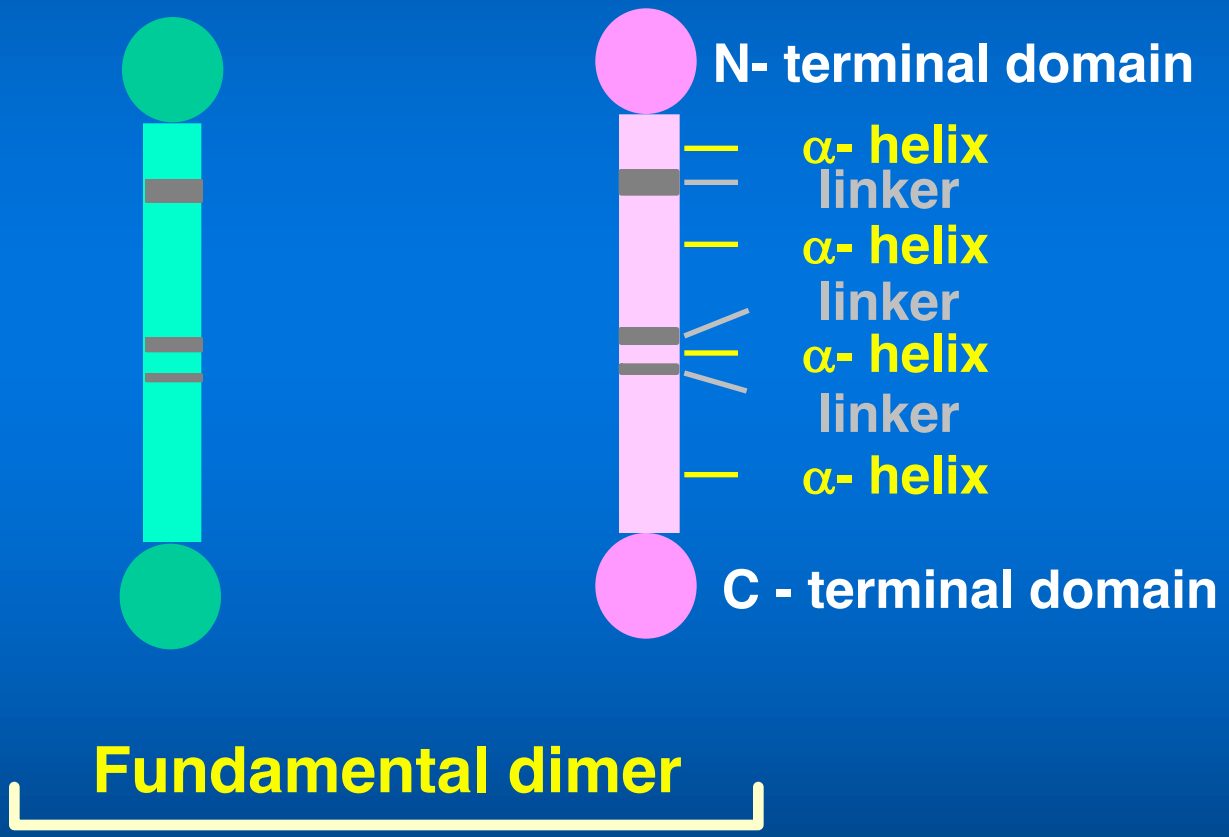
Intermediate Filament Protein Structure



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Intermediate Filament Superfamily

Type	Name	Tissue
Type I	Keratin IF - acidic	epithelial
Type II	Keratin IF - neutral, basic	epithelial
Type III	Vimentin, Desmin, GFAP	Fibroblasts, muscle, astrocytes
Type IV	Neurofilaments	Neurons
Type V	Lamins	Cell nuclei
Other	Nestin, filensin	CNS, eye

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Keratin IF of the Hair Follicle and Epidermis

Epidermis	K1.10 + K2.1 K1.14 + K2.5
ORS	K1.14 + K2.5 K1.15 K1.18 + K2.8 K1.19
IRS	K1.10 + K2.1 K1.16 + K2.6
Cuticle Cortex	Hair keratin IF (4-6 type I and 4-6 type II)
Medulla	K1.19

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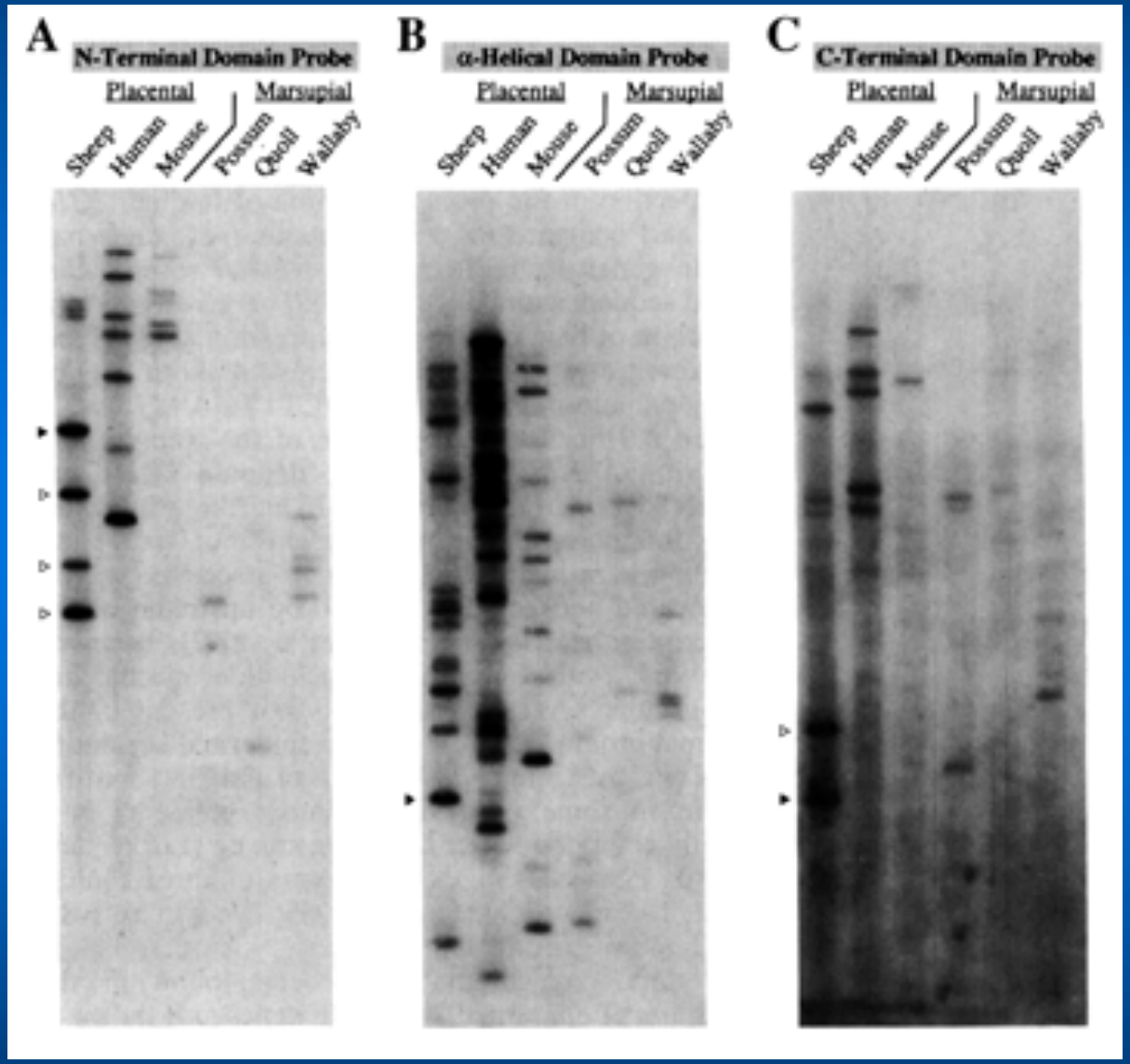
Hair Keratin Genes

- Keratin gene coding regions are highly conserved between species
- The non-coding regions usually differ



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