

**Table S6:** Gene ontology analysis for the Purebred Arabians

Term	Bonferroni adjusted p-value	N genes	Genes
<b>GO biological process</b>			
intermediate filament organization (GO:0045109)	7.29E-09	11	<i>KRT24, KRT25, KRT12, KRT28, KRT10B, KRT27, KRT23, KRT20, KRT10A, KRT39, KRT26</i>
intermediate filament cytoskeleton organization (GO:0045104)	9.17E-09	12	<i>KRT24, KRT25, KRT12, KRT28, KRT10B, KRT27, KRT23, KRT20, KRT10A, KRT39, CSNK1A1, KRT26</i>
intermediate filament-based process (GO:0045103)	1.07E-08	12	<i>KRT24, KRT25, KRT12, KRT28, KRT10B, KRT27, KRT23, KRT20, KRT10A, KRT39, CSNK1A1, KRT26</i>
epithelial cell differentiation (GO:0030855)	1.02E-03	15	<i>KRT24, KRT25, THRA, INTU, KRT12, PLK4, KRT28, RARA, KRT10B, KRT27, KRT23, KRT20, KRT10A, KRT39, KRT26</i>
<b>GO molecular function</b>			
-	-	-	-
<b>GO cellular component</b>			
intermediate filament (GO:0005882)	2.32E-09	13	<i>KRT24, KRT25, KRT12, KRT28, KRT10B, KRT27, KRT23, KRT20, KRT10A, KRT39, CSNK1A1, KRT222, KRT26</i>
intermediate filament cytoskeleton (GO:0045111)	2.63E-08	13	<i>KRT24, KRT25, KRT12, KRT28, KRT10B, KRT27, KRT23, KRT20, KRT10A, KRT39, CSNK1A1, KRT222, KRT26</i>
polymeric cytoskeletal fiber (GO:0099513)	8.97E-05	18	<i>KRT24, KRT25, MAPRE1, CENPE, KIF3B, KRT12, KRT28, KRT10B, KRT27, KRT23, KRT20, KRT10A, KRT39, TUBB3, CSNK1A1, KRT222, GAS8, KRT26</i>
supramolecular fiber (GO:0099512)	1.35E-03	19	<i>KRT24, KRT25, MAPRE1, CENPE, KIF3B, KRT12, KRT28, KRT10B, KRT27, KRT23, KRT20, KRT10A, KRT39, CASQ2, TUBB3, CSNK1A1, KRT222, GAS8, KRT26</i>
supramolecular polymer (GO:0099081)	1.48E-03	19	<i>KRT24, KRT25, MAPRE1, CENPE, KIF3B, KRT12, KRT28, KRT10B, KRT27, KRT23, KRT20, KRT10A, KRT39, CASQ2, TUBB3, CSNK1A1, KRT222, GAS8, KRT26</i>
supramolecular complex (GO:0099080)	1.06E-03	23	<i>KRT24, SSB, KRT25, MAPRE1, CENPE, KIF3B, LARP1B, KRT12, STK31, KRT28, KRT10B, KRT27, KRT23, KRT20, CASC3, KRT10A, KRT39, CASQ2, TUBB3, CSNK1A1, KRT222, GAS8, KRT26</i>