

Figure S1. Residues conservation. (A) HOXA13: Tyrosine 290 residue conservation. (B) HOXA9: Alanine 102 residue conservation. The asterisks indicate fully conserved residues among species. Sequences were aligned using Clustalw (<https://www.genome.jp/tools-bin/clustalw>). (\*)=positions that have a single, fully conserved residue; (;) indicates conservation between groups of strongly similar properties, scoring >0.5 in the Gonnet PAM 250 matrix; (.) indicates conservation between groups of weakly similar properties-scoring ≤0.5 in the Gonnet PAM 250 matrix.

Homo sapiens (Human)	PGYLDMPVVPGLGGPGESRHEPLGLPMESYQPWALPNGWNGQMYCPKEQA
Sus scrofa (Pig)	PGYLDMPVVPGLGGPGESRHEPLGLPMESYQPWALPNGWNGQMYCPKEQA
Mus musculus (Mouse)	PGYLDMPVVPGLGGPGESRHEPLGLPMESYQPWALPNGWNGQMYCPKEQT
Felis catus (Cat)	PGYLDMPVVPGLGGPGESRHEPLGLPMESYQPWALPNGWNGQMYCPKEQA
Macaca mulatta (Rhesus macaque)	PGYLDMPVVPGLGGPGESRHEPLGLPMESYQPWALPNGWNGQMYCPKEQA
Danio rerio (Zebrafish)	PSYLDVPVVPALSAPSEPRHESL-LPVETYQPWAITNGWSSPVYCPKDQT
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Homo sapiens (Human)	ANAVPAAVYHHHHHPYVHPQAPVAA AAPDGRYMRSWLEPTPGALSFA
Macaca mulatta (Rhesus macaque)	ANAVPAAVYHHHHHPYVHPQAPVAA AAPDGRYMRSWLEPTPGALSFA
Mus musculus (Mouse)	ANAVPAAVYHHHHHP -YVHPQAPVAA AAPDGRYMRSWLEPTPGALSFA
Equus caballus (Horse)	ANAVPAAVYHHHHHPYVHPQAPVAA AAPDGRYMRSWLEPTPGALSFA
Bos taurus (Bovine)	PNAVPAAVYHHHHHPYVHPQAPVAA AAPDGRYMRSWLEPTPGALSFA
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