The *POMC* gene encodes a hormone precursor for distinct melanotropins (MSH), lipotropins, and endorphins including γ-MSH (amino acids 77-87, shown in light blue), α-MSH (amino acids 138-150, shown in green), Corticotropin-like intermediary peptide (CLIP) (amino acids 156-176, shown in yellow), ACTH (amino acids 138-176, in brackets), β-MSH (amino acids 217-234, shown in orange), β-endorphin (amino acids 237-267, shown in blue), β-Lipotropin (amino acids 179-234, in brackets), and γ-Lipotropin (amino acids 179-267, in brackets). The amino acid positions are not drawn to scale. The c.231C>A mutation causes a premature stop within the protein just upstream of the γMSH motif.