Title: Proopiomelanocortin Deficiency GeneReview Table 3

Authors: Challis BG, Millington GWM

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Note: The following information is provided by the authors and has not been reviewed

by GeneReviews staff.

Table 3. POMC Pathogenic Allelic Variants Discussed in This GeneReview

DNA Nucleotide Change	Protein Amino Acid Change	References	Reference Sequences
c.7013G>T	p.Glu79Ter	Krude et al [1998]	NM_000939.2 NP_000930.1
c.7133delC	p.Arg83fs	Krude et al[1998]	
c.3804C>A	p.0	Krude et al [2003]	
c.6851A>T	p.Lys25Ter	Krude et al [2003]	
c.6996delC	p.Asn73fs	Krude et al [2003]	
c.7100insGG	p.Ser108fs	Krude et al [2003]	
c.6906delC	p.Pro69LeufsTer71	Farooqi et al [2006]	
c.6922InsC	p.Arg75fs	Clement et al [2008]	
c.231C>A	p.Tyr77Ter	Mendiratta et al [2011]	
c.202C>T	p.68GInTer	Cirillo et al [2012]	

See <u>Quick Reference</u> for an explanation of nomenclature. *GeneReviews* follows the standard naming conventions of the Human Genome Variation Society (<u>www.hgvs.org</u>).

References

Cirillo G, Marini R, Ito S, Wakamatsu K, Scianguetta S, Bizzarri C, Romano A, Grandone A, Perrone L, Cappa M, Miraglia Del Giudice E. Lack of red hair phenotype in a North-African obese child homozygous for a novel POMC null mutation: nonsense-mediated decay RNA evaluation and hair pigment chemical analysis. Br J Dermatol. 2012;167:1393-5.

Clement K, Dubern B, Mencarelli M, Czernichow P, Ito S, Wakamatsu K, Barsh GS, Vaisse C, Leger J. Unexpected endocrine features and normal pigmentation in a young adult patient carrying a novel homozygous mutation in the POMC gene. J Clin Endocrinol Metab. 2008;93:4955-62.

Farooqi IS, Drop S, Clements A, Keogh JM, Biernacka J, Lowenbein S, Challis BG, O'Rahilly S. Heterozygosity for a POMC-null mutation and increased obesity risk in humans. Diabetes. 2006;55:2549-53.

Krude H, Biebermann H, Luck W, Horn R, Brabant G, Grüters A. Severe early-onset obesity, adrenal insufficiency and red hair pigmentation caused by POMC mutations in humans. Nat Genet. 1998;19:155-7

Krude H, Biebermann H, Schnabel D, Tansek MZ, Theunissen P, Mullis PE, Grüters A. Obesity due to proopiomelanocortin deficiency: three new cases and treatment trials with thyroid hormone and ACTH4-10. J Clin Endocrinol Metab. 2003;88:4633-40.

Mendiratta MS, Yang Y, Balazs AE, Willis AS, Eng CM, Karaviti LP, Potocki L.Early onset obesity and adrenal insufficiency associated with a homozygous POMC mutation. Int J Pediatr Endocrinol. 2011;2011:5.