

Title: Mucopolidosis IV *GeneReview* Table 2

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Updated: July 2015

Note: The following information is provided by the authors listed above and has not been reviewed by *GeneReviews* staff.

Table 2. Selected *MCOLN1* Mutations Not Discussed in Mucopolidosis IV *GeneReview*

c.163_197del, c.163_197insTCA
c.473_474delCC
c.1209-1210insT
c.1463_1464insGGCCGCAGCAG ¹
c.304C>T
c.514C>T
c.964C>T
c.317T>C
c.497G>T
c.1207C>T
c.1336G>T
c.1340T>C
c.1395C>G
c.1388G>A
c.236_237ins93 from NADH dehydrogenase 5 99-192 ²
c.302_303delTC
c.920delT
c.1614delG
g.12426 A>T
c.235C>T

1. An 11-nucleotide insertion mutation causing a frame shift in exon 10 was discovered in two non-Jewish individuals [Bargal et al 2001, Altarescu et al 2002].

2. An American and a Canadian family was found to have a 93-bp insertion mutation in exon 2 that leads to altered splicing and null expression. The inserted segment was identical in sequence to part of the gene encoding mitochondrial NADH dehydrogenase subunit 5 [Goldin et al 2004].

References

Altarescu G, Sun M, Moore DF, Smith JA, Wiggs EA, Solomon BI, Patronas NJ, Frei KP, Gupta S, Kaneski CR, Quarrell OW, Slaugenhaupt SA, Goldin E, Schiffmann R. The neurogenetics of mucopolidosis type IV. *Neurology*. 2002; 59:306-13.

Bargal R, Avidan N, Olender T, Ben Asher E, Zeigler M, Raas-Rothschild A, Frumkin A, Ben-Yoseph O, Friedlender Y, Lancet D, Bach G. Mucopolidosis type IV: novel MCOLN1 mutations in Jewish and non-Jewish patients and the frequency of the disease in the Ashkenazi Jewish population. *Hum Mutat*. 2001; 17:397-402.

Goldin E, Stahl S, Cooney AM, Kaneski CR, Gupta S, Brady RO, Ellis JR, Schiffmann R. Transfer of a mitochondrial DNA fragment to MCOLN1 causes an inherited case of mucopolidosis IV. *Hum Mutat*. 2004;24:460-5.