

### Mutation sequence analysis

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HGVS nomenclature (NM\_000295.4)

Nomenclature including the signal peptide

c.922G>T

Type of variation	Mutation Location	Genetic background	ACMG classification
AAT variant	Exon 4	M1	Uncertain significance

### Comments

rs141620200

### AAT variant and Q0 alleles

Variant name	Also Known as	Pathogenicity	HGVS nomenclature protéine
M <sub>1</sub> Lyon		Unknown	p.Ala308Ser
3D position of aa affected	Mobility on polyacrylamide gel		Mobility on agarose gel
			M
AATserum level (g/L)		Anti-elastolytic activity (IU/L)	
<b>Heterozygous</b>	<b>Homozygous</b>	<b>Heterozygous</b>	<b>Homozygous</b>
0.82		11099	

### Comments

associated with a Z allele.

### Occurrence

Ethnic background without frequency range :

### Ethnic background and frequency

Frequency range		Group tested		
from (%)	To (%)	Size	Description (who was tested)	
0.01	0.39			
<b>Occurrence comments</b>				
from gnomAD.				
<b>Overall comments</b>				
<b>Occurrence comments</b>				
<p>This variant was identified at a heterozygous status with a Z allele in a 43-year old woman (familial deficiency). This variant was identified at a heterozygous status M1LyonZ in a 10-year old girl presenting with cystic fibrosis requiring liver transplant. A familial screening was realised : her father was diagnosed M1lyonM2 with an AAT serum concentration of 1.14 g/L et her brother was diagnosed M1lyonS with an AAT serum concentration of 1.15 g/L(picture 2).</p>				
<b>References</b>				
Medline ID	Authors		Title	
30223862	Renoux C, Odou MF, Tosato G, Teoli J, Abbou N, Lombard C, Zerimech F, Porchet N, Chapuis Cellier C, Balduyck M, Joly P		Description of 22 new alpha-1 antitrypsin genetic variants.	
Journal	Year	Volume	Num	Pp
Orphanet journal of rare diseases	2018	13	1	161
<b>Last Update</b>				
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