

Variant: *NM_000277.2(PAH):c.526C>T (p.Arg176Ter)*

Version: 1.0

[CA275338](#)

[102723 \(ClinVar\)](#)

Gene: PAH ([HGNC:5053](#))

Condition: phenylketonuria ([MONDO:0009861](#))

Inheritance Mode: Autosomal recessive inheritance

UID: 08d51386-af9e-4de1-8e7b-0dc6c2252c91

Approved on: 2018-08-13

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HGVS expressions

NM_000277.2:c.526C>T

NM_000277.2(PAH):c.526C>T (p.Arg176Ter)

NC_000012.12:g.102855316G>A

CM000674.2:g.102855316G>A

NC_000012.11:g.103249094G>A

CM000674.1:g.103249094G>A

NC_000012.10:g.101773224G>A

NG_008690.1:g.67287C>T

NG_008690.2:g.108095C>T

NM_000277.1:c.526C>T

NM_001354304.1:c.526C>T

NM_000277.3:c.526C>T

ENST00000307000.7:c.511C>T

ENST00000549111.5:n.622C>T

ENST00000551988.5:n.547C>T

ENST00000553106.5:c.526C>T

Pathogenic

Met criteria codes **4**

PM2

PP4_Moderate

PM3_Strong

PVS1

Evidence Links **2**

Expert Panel

[Phenylketonuria VCEP](#)

Criteria Specification Information **!**

[Criteria Specifications for this VCEP](#)

Evidence submitted by expert panel

Phenylketonuria VCEP

PAH-specific ACMG/AMP criteria applied: PVS1: Nonsense variant; PM2: ExAC MAF: 0.00010; PP4_Moderate: BH4 defect excluded in all patients in Liu 2015. Identified in 6 patients in this study (PMID:10394930; PMID:26600521); PM3_Strong: Identified in 6 patients, in trans with R243Q and R241C (both pathogenic) (PMID:26600521). In summary this variant meets criteria to be classified as pathogenic for phenylketonuria in an autosomal recessive manner based on the ACMG/AMP criteria applied as specified by the PAH Expert Panel: (PVS1, PM2, PP4_Moderate, PM3_Strong).

Met criteria codes

PM2	✓	ExAC MAF: 0.00010
PP4_Moderate	✓	BH4 defect excluded in all patients in Liu 2015. Identified in 6 patients in this study <hr/> Patients with PAH-deficient hyperphenylalaninaemia in 272 independent families (248 PKU and 24 MHP) living in Germany were investigated. R176X was detected on 1 chromosome. PubMed:10394930 BH4 defect excluded in all patients PubMed:26600521
PM3_Strong	✓	Identified in 6 patients, in trans with R243Q and R241C (both pathogenic) <hr/> Identified in 6 patients, in trans with R243Q and R241C (both pathogenic) PubMed:26600521
PVS1	✓	Nonsense variant

Curation History [↗](#)



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See Report	Preferred Variant Title	Classification ⓘ	Condition	Published Date	Version ⓘ	Criteria Specification	Gene
View	NM_000277.2(PAH):c.526C>T (p.Arg17...	Pathogenic	Phenylketonuria	2019-04-06	1.0	-	PAH

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