

Variant: NM_000277.3(PAH):c.451G>C (p.Asp151His)

Version: 1.0

CA229553 [↗](#)

102682 (ClinVar) [↗](#)

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

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

Inheritance Mode: Autosomal recessive inheritance

UUID: d15d8248-230b-4443-917e-6869c8e4e146

Approved on: 2024/11/17

Published on: 2024/11/17

HGVS expressions

NM_000277.3:c.451G>C

NM_000277.3(PAH):c.451G>C (p.Asp151His)

NC_000012.12:g.102866654C>G

CM000674.2:g.102866654C>G

NC_000012.11:g.103260432C>G

CM000674.1:g.103260432C>G

NC_000012.10:g.101784562C>G

NG_008690.1:g.55949G>C

NG_008690.2:g.96757G>C

ENST00000553106.6:c.451G>C

ENST00000307000.7:c.436G>C

ENST00000549111.5:n.547G>C

ENST00000551988.5:n.530+10808G>C

ENST00000553106.5:c.451G>C

NM_000277.1:c.451G>C

NM_000277.2:c.451G>C

NM_001354304.1:c.451G>C

NM_001354304.2:c.451G>C

Likely Pathogenic

Met criteria codes **3**

PM5_Supporting

PP3_Strong

PM2_Supporting

Not Met criteria codes **1**

PP4

Evidence Links **0**

Expert Panel

Phenylketonuria VCEP [↗](#)

Criteria Specification Information **!**

[↗](#) Criteria Specifications for this VCEP

Evidence submitted by expert panel

Phenylketonuria VCEP

The c.451G>C (p.Asp151His) variant in PAH is reported in a phenylketonuria cohort of the British Isles (PMID: 9012412). This variant is absent in population databases. Multiple lines of computational evidence support a deleterious effect (REVEL=0.977). Another missense

variant [c.452A>G (p.Asp151Gly)] in the same codon has been classified as likely pathogenic for phenylketonuria by the ClinGen Phenylketonuria Variant Curation Expert Panel (PM5_Supporting). In summary, this variant meets criteria to be classified as likely pathogenic for PAH. PAH-specific ACMG/AMP criteria applied: PM2_supporting, PP3_strong, PM5_supporting.

Met criteria codes

PM5_Supporting			D151G in ClinVar is LP by PAH VCEP
PP3_Strong			Predicted deleterious in REVEL=0.977, SIFT, PP-2, MutationTaster
PM2_Supporting			absent from gnomAD v4.1.0

Not Met criteria codes

PP4			Reported in a PKU cohort in the British Isles, no serum Phe cutoff given, no BH4 assessment reported PMID: 9012412
-----	---	---	--

Curation History

▼

▼

Showing 1 to 1 of 1 rows

--

The information on this website is not intended for direct diagnostic use or medical decision-making without review by a genetics professional. Individuals should not change their health behavior solely on the basis of information contained on this website. If you have questions about the information contained on this website, please see a health care professional.