

GO:0006069 : ethanol oxidation (<https://www.ebi.ac.uk/QuickGO/term/GO:0006069>)
 GO - Cellular Component
 GO:0005886 : plasma membrane (<https://www.ebi.ac.uk/QuickGO/term/GO:0005886>)
 GO:0005829 : cytosol (<https://www.ebi.ac.uk/QuickGO/term/GO:0005829>)
 GO:0005654 : nucleoplasm (<https://www.ebi.ac.uk/QuickGO/term/GO:0005654>)

Presumptive Null

No ([#gephebase-summary-title](https://www.gephebase.org/search-criteria?/and+Presumptive+Null+No))

Molecular Type

Coding ([#gephebase-summary-title](https://www.gephebase.org/search-criteria?/and+Molecular+Type+Coding))

Aberration Type

SNP ([#gephebase-summary-title](https://www.gephebase.org/search-criteria?/and+Aberration+Type+SNP))

SNP Coding Change

Nonsynonymous

Molecular Details of the Mutation

Arg47His; the derived allele results in 100-fold enzymatic rate increase and shows signs of positive selection in correlation with history of rice domestication

Experimental Evidence

Association Mapping ([#gephebase-summary-title](https://www.gephebase.org/search-criteria?/and+Experimental+Evidence+Association+Mapping))

	Taxon A	Taxon B	Position
Codon	-	-	-
Amino-acid	-	-	-

Main Reference

Geographically separate increases in the frequency of the derived ADH1B*47His allele in eastern and western Asia. (2007) (<https://pubmed.ncbi.nlm.nih.gov/17847010>)

Authors

Li H; Mukherjee N; Soundararajan U; Tarnok Z; Barta C; Khaliq S; Mohyuddin A; Kajuna SL; Mehdi SQ; Kidd JR; Kidd KK

Abstract

The ADH1B Arg47His polymorphism has been convincingly associated with alcoholism in numerous studies of several populations in Asia and Europe. In a review of literature from the past 30 years, we have identified studies that report allele frequencies of this polymorphism for 131 population samples from many different parts of the world. The derived ADH1B*47His allele reaches high frequencies only in western and eastern Asia. To pursue this pattern, we report here new frequency data for 37 populations. Most of our data are from South and Southeast Asia and confirm that there is a low frequency of this allele in the region between eastern and western Asia. The distribution suggests that the derived allele increased in frequency independently in western and eastern Asia after humans had spread across Eurasia.

Additional References

Geographically separate increases in the frequency of the derived ADH1B*47His allele in eastern and western Asia. (2007) (<https://pubmed.ncbi.nlm.nih.gov/17847010>)

RELATED GEPHE

Related Genes

4 (CYP2C9, CYP4F2, MDR1, Vkorc1) (<https://www.gephebase.org/search-criteria?/or+Taxon+ID+9606+/and+Trait=Xenobiotic+resistance/and+groupHaplotypes=true#gephebase-summary-title>)

Related Haplotypes

No matches found.

EXTERNAL LINKS

COMMENTS