

VitaSIRO soloTM

ADH/ALDH SNP Assay

Is Your Body Wired for Alcohol?
Diagnose Alcohol Sensitivity in 20 Minutes.

Did you know that acetaldehyde, a toxic byproduct of alcohol metabolism, is classified as a Group 1 carcinogen by WHO? ¹

If your body struggles to break acetaldehyde down, it can lead to serious health risks, including esophageal cancer. Conversely, high-efficiency acetaldehyde metabolism has been associated with alcohol dependence, as rapid clearance may reduce the body's natural deterrent to excessive consumption.

These differences stem from genetic variations in two key enzymes: ADH1B, which controls how fast alcohol converts into acetaldehyde, and ALDH2, which determines how efficiently it's broken down. Studies show that the ALDH2*2 variant, linked to poor acetaldehyde breakdown, is found in 16-40% of East Asians², while the ADH1B*2 allele, which accelerates ethanol metabolism, is present in 86% of this population³.

Genetic testing offers rapid insights into alcohol sensitivity, empowering health professionals, wellness programs, and counseling services to provide personalized risk management strategies in just 20 minutes.



Key Features

The ADH/ALDH SNP Assay was built on the VitaSIRO *solo*™ platform, targeting both ADH and ALDH genes. By delivering rapid, on-site genetic insights, it empowers HCPs (Health Care Professionals), wellness coaches, and counselors to make informed decisions with ease. Whether in clinical settings, wellness programs, or individual consultations, this tool enhances personalized risk assessment, making genetic testing more practical and actionable than ever before.



Ready to Use

Lyophilized reagents and room-temperature storage



User-Friendly

Intuitive result interpretation from non-invasive buccal swap sampling



Rapid Result

< 1-minute hands-on time and 20-minute turnaround time

Result Interpretation:

Test results display the activity of ALDH2 and ADH1B, showing your genotype (G/G, G/A, A/A) and its impact on alcohol tolerance (High, Moderate, Low). These enzymes determine how quickly your body metabolizes alcohol and acetaldehyde, affecting your reaction to drinking.



Metabolism Efficiency and Genotypes		(Aldehyde) ALDH2		
		High G/G	Moderate G/A	Low A/A
(Alcohol) ADH1B	High A/A			
	Moderate A/G			
	Low G/G			

Assay Information:

Catalog Number.	PCRB01116
Targets.	ADH1B A & G; ALDH2 G & A gene
Sample Types.	Buccal Swab
Quantity.	20 tests/box
Technology.	Real-Time PCR + Fluorescence Spectrum Detection
Kit Storage.	5~25°C

Reference:

1. IARC Handbooks of Cancer Prevention Volume 20A: Reduction or Cessation of Alcohol Consumption
2. Peng, GS., Yin, SJ. Effect of the allelic variants of aldehyde dehydrogenase ALDH2*2 and alcohol dehydrogenase ADH1B*2 on blood acetaldehyde concentrations. Hum Genomics 3, 121 (2009).
3. ADH1B * 2 Is Associated With Reduced Severity of Nonalcoholic Fatty Liver Disease in Adults, Independent of Alcohol Consumption Vilar-Gomez, Eduardo et al. Gastroenterology, Volume 153, Issue 3, 929 - 943

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Advanced Medical Technology for All

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