

Hereditary Fructose Intolerance (HFI)

OMIM: 229600

Gene: Aldolase B

Locus: 9q22.3

OMIM: 612724

SERVICE: mutation and dosage analysis of the aldolase B gene

TESTING: **Diagnostic*:** clinically affected patients
Carrier: relatives of clinically affected patients (known mutation)
Presymptomatic: prior to weaning (known mutations)
*samples will only be accepted with a completed 'testing criteria' form (see attached)

REFERRALS: **Paediatric Gastroenterologists and Metabolic Medicine Consultants**
The laboratory does NOT accept referrals directly from patients

TARGET REPORTING TIME AND COSTS

(Non UK National Health Service patients are subject to a surcharge. Payment must be agreed prior to testing – please include invoice form A)

Diagnostic:	8 weeks	£295 (sequencing + dosage)
Carrier:	2 weeks	£145

TECHNICAL INFORMATION

- PCR and fluorescent sequence analysis of exon 5 of ALDOB gene to detect mutations: p.Ala150Pro, p.Ala175Asp
 - PCR and fluorescent sequence analysis of exons 2-9 and splice-site boundaries of the ALDOB gene
 - Multiplex ligation dependent probe amplification of all exons
- Approximately 85% of mutations in Europe are due to common mutations: p.Ala150Pro, p.Ala175Asp and p.Asn335Lys

SAMPLE REQUIREMENTS

- 1-5ml blood in EDTA or 50ul DNA (concentration ~500ng/ul)
- All patient samples must be labelled with **name, date of birth and Hospital/NHS number**
- Samples should be accompanied by a FULLY completed request card (available from the laboratory)
- Please include details of test, family history, patient address & postcode, GP, referring clinician and unit/hospital
- **Samples and paperwork must include three unique and matching patient identifiers**

SHIPPING DETAILS

- DNA can be sent by first class post
- Blood must be appropriately packaged and preferably sent by courier to arrive as soon as possible
- Do not freeze prior or during postage

CONSENT

It is the responsibility of the referring clinician to ensure consent has been obtained for:

- testing and storage
- the use of the sample and the information generated from it to be shared with members of the patients family and their health professionals

After testing, part of this sample might be used anonymously for the development of new tests and to monitor the quality of laboratory results.

CONTACT DETAILS

Genetics Laboratories, Box 143
Level 6, Addenbrooke's Treatment Centre
Addenbrooke's Hospital
Cambridge CB2 0QQ
Tel: +44 (0) 1223 348866
Fax: +44 (0) 1223 348870
Email: becky.treacy@addenbrookes.nhs.uk

Website: www.cuh.org.uk/genetics-labs



Accredited Medical Laboratory
Reference No: 1275

UKGTN testing criteria

Name of Disease:	Hereditary Fructose Intolerance (HFI)
Name of Gene:	Aldolase B

Patient name:	Date of birth:
Patient postcode:	NHS number:
Name of referrer:	
Title/Position:	
Department/Hospital:	
Contact email/telephone number:	

Referrals will only be accepted from one of the following:
 (Please indicate with a tick which category refers to the referrer).

Referrer	Tick if this refers to you.
Consultant Gastroenterologist	<input type="checkbox"/>
Metabolic Medicine Consultant	<input type="checkbox"/>

Minimum criteria required for testing to be appropriate as stated in the Gene Dossier:

Criteria	Tick if this patient meets criteria
1. Family history of fructose intolerance	<input type="checkbox"/>
2. Vomiting/hypoglycaemia post weaning onto fructose containing foods	<input type="checkbox"/>
3. Lifelong avoidance of fructose containing foods	<input type="checkbox"/>
4. Infantile acute liver failure if fructose/sorbitol medications have been given.	<input type="checkbox"/>

If the sample does not fulfil these criteria and you still feel that testing should be performed please contact the molecular genetics laboratory