

sample type: **BLOOD**

FOOD ALLERGEN CELLULAR TEST

Cellular Allergy Profiles

Food allergy is a common problem in children and adults. Many patients present with adverse reactions to foods, but are not diagnosed with 'allergies' by routine methods. To date, the traditional diagnosis of food allergy is based on clinical history, skin-prick tests, the determination of specific IgE class antibodies from serum, and the gold standard 'food challenge', which is both cumbersome and problematic to perform. It is now known that the underlying mechanisms for allergy are not restricted to IgE-mediated reactions alone, but that there are many different mechanisms that can give rise to these allergy symptoms. There is therefore a marked discrepancy between those displaying allergy reactions, and those with traditionally diagnosed food allergy.

Diagnosing Food Allergy

The FACTest is a cellular assay and provides a powerful tool for the detection of adverse reactions to foods, beverages and additives, by measuring the cellular reaction to allergens and reliably detecting both IgE and non-IgE mediated reactions. Leukotrienes are newly formed inflammatory mediators produced by different cell subpopulations such as monocytes, macrophages and basophils, and particularly mast cells and eosinophils, upon activation by food allergens to which an individual has become sensitized. Some of their physiological effects are the very symptoms commonly associated with allergic reactions.

- Eczema
- Asthma
- Bloating
- Constipation
- Diarrhoea
- Nausea
- IBS
- Aching joints
- Fatigue

It is known that the presence of specific IgE to foods does not necessarily correlate with clinical symptoms. Therefore the development of this reliable in vitro method with no potential harm to patients' health represents a significant advance in food-allergy diagnostics.

Food Additives

This profile measures reactions to commonly found food additives and preservatives. Food additives are capable of inducing pseudoallergic reactions similar to aspirin and NSAID's. These reactions often imitate IgE mediated immediate type reactions, but the exact mechanisms of these reactions are still not clearly understood. The most accepted hypothesis describes the reaction as a non-immunological activation of inflammatory cells like mast cells, basophils and others. Cellular analysis represents a proven technology for the detection of such reactions.

Antibiotics and Analgesics

Hypersensitivity to aspirin and other nonsteroidal anti-inflammatory drugs is a well recognised condition and has attracted increasing attention in the last four decades. This syndrome presents either in the airways as recurrent rhinitis, followed by asthma attacks, or by skin manifestations such as urticaria and angioedema. Allergic reactions to antibiotics are the most common cause of adverse drug reactions mediated by specific immunological mechanisms. Determination of specific IgE, although indicative, has often a limited diagnostic value, since drug-specific serum IgE usually decreases or disappears within weeks or months after the last exposure. A number of well-controlled and validated studies have clearly shown that ASA/NSAID and antibiotics can induce leukotriene release detected by cellular analysis.

Full FACTest profiles are available in several languages accompanied by a customised TrueRelief® four-day rotation diet that tailors a regime for symptom alleviation and to regain tolerance to triggering foods for non-IgE dependent type reactions.

• Testing Options:

- Combination Profiles-

FACT Foods, Additives & Total IgE

FACT Dairy and Grains & tTGA*

FACT Food Additives

FACT Antibiotics & Analgesics

-FACT & IgE Profiles-

IgE Food, FACT, tTGA*, Total IgE

IgE Inhalants & FACT

IgE Food Panel (Standard UK)

IgE Inhalant Panel (Standard UK)

IgE Individual allergens (requested)

*Tissue Transglutaminase
IgA class Antibodies

• Specimen Requirements:

- FACT Full Profile -

10 ml x 2 EDTA

- FACT Dairy & Grains Profiles -

10 ml EDTA

- FACT Antibiotic & Analgesics -

10 ml EDTA

- FACT Additives Profile -

10 ml EDTA

- IgE Profiles -

3 ml serum in SST

• Before Taking this Test:

- Avoid immuno-suppressive med-

ications for at least one week

- Chemotherapy may interfere with test results

- See instructions inside test kit for details



Patient: **Ms Sample Report**

Accession No:

Food Allergen Cellular Test (FACT™)

Fish / Shellfish	Vegetables	Poultry / Meats	Dairy
Clam 0	Aubergine 0	Beef (Veal) 0	Cow's Cheese 2
Crab 3	Avocado 0	Chicken 0	Cow's Milk 2
Fish Cod 0	Beetroot 0	Egg white 0	Goat's Milk 0
Fish Haddock 0	Broccoli 0	Egg yolk 0	Goat's Cheese 0
Fish Salmon 0	Brussels sprouts 0	Lamb (Mutton) 0	Sheep's Milk 0
Fish Tuna 0	Cabbage 0	Pork 0	Sheep's Cheese 0
Lobster 3	Leek 0	Turkey 0	Rice milk 0
Mussel 0	Cauliflower 0		Soya milk 0
Oyster 0	Carrot 0		
Prawn (Shrimp) 3	Celery 0	Miscellaneous	Nuts and Grains
Scallop 0	Chilli (Paprika) 0	E951 0	Almond 2
Fruits	Cucumber 0	E621 MSG 2	Barley 0
Apple 1	Garlic 0	E124 Ponceau 0	Bean Green 0
Apricot 0	Lettuce 0	E210 Benzoate 0	Bean Haricot 0
Banana 0	Mushroom 0	E110 S.Yellow 2	Bean Kidney 0
Cherry 1	Onion 0	E102 Tartrazine 0	Brazil nut 0
Citrus fruit 0	Parsley 0	Chocolate 0	Buckwheat 0
Blackcurrant 0	Pea 0	Coffee 0	Cashew nut 0
Date 0	Pepper (Bell) 0	Honey 1	Chickpea 0
Fig 0	Pepper (Black) 0	Sugar-beet 1	Coconut 0
Gooseberry 0	Potato 0	Sugar-cane 1	Corn (Maize) 0
Grape 0	Shallot 0	Tea black 0	Hazelnut 2
Grapefruit 0	Spinach 0	Tea green 0	Lentil 0
Kiwi 0	Tomato 0	Yeast 1	Linseed 0
Loganberry 2			Oats 0
Mango 0			Peanut 4
Melon 0			Pine nut 0
Nectarine 1			Poppy seed 0
Peach 1			Rice 0
Pear 1			Rye 0
Pineapple 0			Sesame seed 0
Plum (Prune) 0			Soya 0
Raspberry 0			Sunflower seed 0
Strawberry 2			Walnut 0
			Wheat 0

Total IgE Antibodies

Inside Outside
Total IgE **120.0**

Reference Range <= 87.0 IU/mL

Total IgE level may have clinical significance and can be a useful indicator of IgE mediated disease.

0 None Detected 1 Low 2 Moderate 3 High 4 High

- The FACTest™ measures the release of inflammatory markers from white blood cells following exposure to the test foods and additives, for the assessment of both IgE and non IgE dependent allergic reactions.

- Increasing scores suggest an increasing probability of clinical reactivity to specific foods.

- The True Relief diet is specific to FACTest™ results. Other dietary restrictions should also be taken into account.

Laboratory Comments

Reported by: NRA

Testing options & Analytes tested:

Full FACT Profile

- Fish / Shellfish
- Fruits
- Vegetables
- Poultry / Meats
- Nuts / Grains
- Additives
- Miscellaneous

FACT Dairy & Grains

- Cow's Milk
- Goat's Milk
- Sheep's Milk
- Cow's Cheese
- Egg (white,yolk)
- Soya milk
- Barley
- Buckwheat
- Corn (Maize)
- Oats
- Rice
- Rye
- Wheat
- Yeast (bakers,brewers)

FACT Food Additives

- E102 Tartrazine
- E104 Quinoline Yellow
- E110 Sunset Yellow FCF
- E122 Carmoisine
- E123 Amaranth
- E124 Ponceau Red 4R
- E127 Erythrosine
- E131 Patent Blue V
- E132 Indigo Carmine
- E133 Brilliant blue FCF
- E142 Green S
- E151 Black BN
- E154 Brown FK
- E155 Brown HT
- E211 Sodium Benzoate
- E224 Potassium Metabisulphite
- E250 Sodium Nitrite
- E320 Butylated Hydroxyanisole
- E466 Carboxymethylcellulose
- E550 Sodium Salicylate
- E621 Monosodium glutamate
- E951 Aspartame

FACT Antibiotics & Analgesics

- Penicillin G
- Penicillin V
- Cephalosporin C
- Sulphamethoxazole
- Trimethoprim
- Tetracycline
- Ciprofloxacin
- Ampicillin
- Amoxycillin
- Lys-Aspirin
- Diclofenac
- Ibuprofen
- Indomethacin
- Paracetamol

For test kits, clinical support, or more information contact:

Client Services

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More detailed publications with references are also available: www.GDXuk.net