

Manufactured by:



Warren Type 1 Diabetes DNA Panel 4

Product Data Sheet

Product No: DUKW1 Panel 4 (2µg)

ECACC Catalogue No. 06090104

Background

The Diabetes UK Type 1 Diabetes Warren Collection was initiated in 1989 and is the largest single collection of type 1 diabetes multiplex families in the world. For inclusion, families must be of white European descent, with two living parents and at least two children with insulin dependent diabetes mellitus, at least one of which must have been diagnosed before the age of seventeen. This collection has been instrumental in a number of discoveries, such as the IDDM4 and IDDM5 genes.

Description

Each panel consists of DNA from 96 unrelated individuals affected with Type 1 diabetes from the Warren 1 collection. DNA is extracted from lymphoblastoid cell lines derived by Epstein Barr Virus (EBV) transformation of peripheral blood lymphocytes from fresh, single donor blood samples. All donors have given written, informed consent for their blood to be used for research purposes.

The DNA is extracted and purified using standard techniques that yield high molecular weight material, as verified by agarose gel electrophoresis. The composition of each array is completely defined and standardised so that each product lot will be identical. The identity of each product lot is checked using STR DNA profiling.

Information concerning age at diagnosis and HLA profile for each case sample is available from ECACC on request, as is DNA from non-affected family members.

Sample details

The table below provides the designation of each sample in the panel.

	1	2	3	4	5	6	7	8	9	10	11	12
A	0410-3	0503-3	0436-4	0422-4	0448-4	0444-4	0149-4	0151-4	0016-3	0046-3	0239-3	0212-4
B	0425-4	0414-3	0433-3	0132-4	0360-3	0392-4	0402-4	0137-4	0230-3	0090-3	0055-4	0161-3
C	0336-3	0451-3	0202-4	0313-4	0450-4	0404-4	0440-3	0362-4	0173-4	0308-3	0059-3	0285-3
D	0421-4	0429-4	0162-4	0354-4	0442-3	0406-3	0366-3	0258-3	0310-3	0231-4	0156-4	0003-4
E	0467-4	0430-4	0201-3	0345-3	0431-4	0287-3	0082-3	0099-3	0181-3	0147-4	0415-4	0318-3
F	0423-4	0434-4	0236-3	0357-3	0447-4	0376-4	0146-3	0145-4	0060-4	0311-3	0232-4	0179-3
G	0071-3	0439-4	0204-4	0379-4	0446-3	0403-4	0160-3	0154-3	0124-4	0223-4	0250-3	0200-4
H	0501-4	0438-3	0468-3	0393-4	0443-3	0112-3	0136-3	0144-4	0128-4	0113-3	0087-3	0061-3

Amount and concentration of DNA

The DNA concentration is measured using the ds DNA Quantitation kit (Molecular Probes, USA) on a Fluroskan Ascent from Labsystems (Type 374).

The DNA is dissolved in 10mM Tris (pH8) 1mM EDTA to preserve the quality of the DNA.

Total DNA per sample:	Minimum of 2µg
Concentration:	Target 100ng/µl Typical range +/- 10ng/µl
Recoverable volume:	20µl

Storage

ECACC DNA panels are supplied frozen to preserve quality and also to facilitate handling. On receipt, the panels should be stored at -80°C. The DNA array presentation is intended for single use although, with care, repeat use is possible. After thawing, panel can be stored at 2-8°C for 6 months provided precautions are taken to prevent fluid loss by evaporation.

Repeated freeze-thawing cycles can damage the DNA and should be avoided.

Use of DNA Panels

Remove the panels from its polythene bag / packaging and make sure this Data Sheet is retained safely. Do not remove the foil seal.

Place the panels on a level surface, top uppermost and allow to thaw. Centrifuge the plate to force all the fluid to the bottom of the well. Do not remove the foil seal until these precautions have been observed.

Important - If it is not possible to centrifuge the plates then the foil seal must be removed immediately after removal from freezer storage. (If the plate is allowed to thaw, liquid may condense on the underside of the foil seal.)

Alternatively the foil seal may be pierced using a sharp point to allow access to micropipette tips. This approach minimises the risk of cross contamination associated with the action of peeling off the foil seal.

Use a micropipette to withdraw the required amount of DNA solution from the array.

Warnings and Precautions

Avoid cross contamination between different samples comprising an array. Do not repeatedly use the same foil seal. Remove the seal with care. Use clean pipette tips for each specimen.

The master cell banks used to prepare the DNA extracts are taken from "low risk" normal blood donors. However it is recommended that standard laboratory precautions for handling potentially infectious material should be employed.

Limitations of Use

ECACC DNA Panels are intended for research use only.