

RNA fusion panel request form



Yorkshire and North East
Genomic Laboratory Hub
Newcastle Genetics Laboratory

Patient Name:

Date of Birth:

Gender:

Hospital No:

Pathology No:

NHS No:

Sample type: (see over for sample requirements)

Sample storage history: (since sampling)

Date of sample / Time of sample:

Estimated tumour content
% tumour nuclei:
% necrosis:
Cellularity:

Clinical details
Block number:
Please circle: biopsy / resection
Primary / metastasis
Diagnosis:

Report to: *please add nhs.net email*
Oncologist:
Pathologist:

Cell Pathology Laboratory Address:

Current summary of genetics testing:

Sample transport: ***please send to your local YNEGLH laboratory;***

Newcastle Genetics Laboratory, Central Parkway,
Newcastle upon Tyne, NE1 3BZ

Leeds Central Lab. Genomic Specimen Reception
(Histopathology Department), Bexley Wing (Level 5)
St James's University Hospital, Beckett Street
Leeds, LS9 7TF

Sheffield Diagnostic Genetics Service
Sheffield Children's NHS Foundation Trust
Western Bank, Sheffield S10 2TH

Samples will be forwarded to Newcastle for testing

Newcastle genetics Lab. use only

Result enquiries:
RNA Fusion Panel Service, Newcastle Genetics Laboratory
nuth.cancer.genomics@nhs.net 0191 241 8786

RNA fusion panel – referral guidelines:

- Uncertain diagnosis or where there is currently no available targeted fusion tests (FISH or RT-PCR) for the diagnoses under consideration.
- Multiple differential diagnoses and two targeted fusion tests (FISH or RT-PCR) have not revealed any abnormality.
- FISH has identified rearrangement of one gene but not the fusion partner. Referral for fusion panel testing may be considered where knowledge of the fusion partner is important for diagnosis and/or treatment.
- Genes such as NTRK where there are several different types (NTRK1, NTRK2 and NTRK3).
- Pathology diagnosis may have been fairly clear but FISH/RTPCR studies have not been able to confirm.

Sample requirements for RNA fusion panel:

- **Fresh tissue:** minimum of $\sim 1\text{mm}^3$ tissue

either:

1. Fresh frozen tumour tissue on dry ice with locally estimated tumour content

or

2. Fresh tumour tissue stored in 'RNA-later buffer' (Thermofisher) with locally estimated tumour content.

NB. Do not freeze in 'RNA-later' – please store/transport at 4°C

- **FFPE tissue:**

either:

1. 5x 10 μM FFPE curls with stated tumour content

or

2. 6x 3 μM FFPE sections with labelled H&E (with tumour content of labelled region) slide for macro dissection

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