



Culture Collections: Nucleic Acids

Nucleic Acids for Research and Diagnostics

Nucleic acids (genomic DNA, RNA and cDNA) are used increasingly in research and clinical diagnostic settings as an alternative to live micro-organisms and cell lines in disease research, as a means of producing vaccines, as a tool for identifying potential drug targets for novel therapeutics in drug development, and also as gene controls in diagnostic PCR assays.

The Culture Collections team offers a wide range of nucleic acid products and services to support researchers and the biomedical community. These include nucleic acids from the human and animal cell lines, bacteria, viruses and fungi listed in the Culture Collections' online catalogue as well as several bespoke extraction services.

Using authenticated nucleic acids saves the expense of purchasing live micro-organisms or cell lines, and the time taken for culturing and extraction. There are many benefits of using nucleic acids from an authenticated source; the provenance of each product is known, and extraction, preparation and quality control is taken care of which means that the products are ready to use straight away.

Culture Collections provides authenticated, quality nucleic acids in a variety of formats to suit you, allowing you to progress in your research or undertake diagnostic testing with confidence.

Culture Collection nucleic acid products are supplied at either +4°C or frozen. All nucleic acids are supplied with a data sheet which accompanies the delivery; these sheets contain valuable information about how the nucleic acids should be handled and stored.

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Operated by Public Health England

Nucleic Acids available:

DNA
RNA
cDNA

Available from:

All ECACC lines via the
online catalogue.
Bespoke ECACC services.

ECACC has developed high quality, high molecular weight genomic nucleic acid products derived from ECACC cell lines, all available from the ECACC online catalogue (DNA/RNA 5µg (100ng/µl), cDNA 20µl). Large scale DNA orders and pellet ready extractions are also offered. To ensure the highest quality and reproducibility, extracted nucleic acid is subject to defined quality control procedures.

Off-the-shelf DNA panels are also available comprising 96 control DNA samples (2mg of DNA at 100ng/ml) in a 96 well plate. Four different panels are available; Human Random Control, Ethnic Diversity, Diabetes UK Warren Collection and Primate.

ECACC provides custom DNA, RNA and cDNA extraction services from customers' own cell lines and blood samples - all part of the ECACC Human Genetic Service. For bespoke services contact: culturecollections.ECACC@phe.gov.uk



Operated by Public Health England

Nucleic Acids available:

DNA

Available from:

150 strains via the NCTC
online catalogue.
Bespoke NCTC services.

NCTC holds nearly 5100 type and reference bacterial strains. DNA from 150 NCTC Hazard Group 2 and 3 strains is now available via the online catalogue. The DNA supplied is high molecular weight and therefore suitable for a wide range of molecular applications including whole genome sequencing.

A full list of the strains available can be found at:
www.phe-culturecollections.org.uk/BacterialDNA

A bespoke service provides DNA from other NCTC strains within the collection on request. For bespoke services please contact: culturecollections.businessE@phe.gov.uk



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Nucleic Acids available:

DNA
RNA

Available from:

All NCPV strains via the
online catalogue.

NCPV is primarily comprised of human pathogenic viruses requiring handling at UK biosafety levels 3 or 4, but has expanded to encompass hazard group 2 pathogens. Viral nucleic acid can be useful for scientists who do not have the facilities for working with live viruses.

NCPV supplies nucleic acid extracted from live virus, which is prepared from un-purified virus supernatant. The material is tested for the presence of viral genome by NCPV scientists using PCR. NCPV nucleic acid is supplied as 1ml of unquantified DNA or 0.4ml of unquantified RNA.

Viral nucleic acid is a made to order product and requires approximately two weeks for production.



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NCPF holds over 4,000 strains of fungi and yeasts of clinical significance. DNA for many of the strains is available upon request.

For more information please contact: culturecollections@phe.gov.uk