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Lentivirus Product Support Services

Lentiviruses are a type of retrovirus, a family of RNA viruses that can integrate their genetic material into the host cell's DNA. They are characterized by their ability to infect both dividing and non-dividing cells, making them a versatile tool in various fields of biology and medicine.

About

Lentiviruses have gained significant attention due to their use in gene therapy and molecular biology research. They are commonly employed for gene delivery into target cells, allowing the introduction or modification of specific genes. Lentiviral vectors, which are modified forms of the virus, have become valuable tools for genetic manipulation, including gene knockdown or overexpression, as well as gene editing techniques like CRISPR/-Cas9.

To meet the demands of this rapidly growing field, Avance Biosciences' Lentivirus Quality Control Testing Services offer comprehensive solutions to deliver cutting-edge results with confidence.

Key Services:

Critical Quality Attributes	Assay	Description
Identity	Sequence Confirmation	Verify the sequence of Lentivirus genome by Sanger Sequencing or NGS
	Long Read NGS	Sequence Lentivirus genome by long read Nanopore sequencing
Purity	Capsid content (empty/full ratio)	Measure the percent of full to empty capsids by CE-SDS
	Capsid purity Analysis	Assess the purity of Lentivirus capsid proteins using CE-SDS or Jess
	Residual Plasmid DNA	Quantify residual plasmid DNA using qPCR or ddPC.
	Residual host cell DNA	Quantify residual host cell DNA using qPCR or ddPCR
	Residual Host Cell Protein	Determine presence and quantitate residual host cell proteins by ELISA

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Key Services (Cont.):

Critical Quality Attributes	Assay	Description
Potency	Vector Genome Titer	Quantify the number of vector genomes using qPCR or ddPCR
	Cell-based assay	Develop cell-based assay for evaluating post-transduction endpoint (mRNA expression, protein production)
Genetic Identity	Vector Genome Integrity	Confirm the integrity of the vector genome using QPCR/ddPCR or Bioanalyzer or CE
Safety	Endotoxin	USP <85>
	Bioburden	USP <61>, <62>
	Sterility	USP <71>
Other	Appearance	USP <790>
	pH	USP <791>