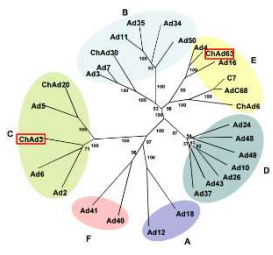


Adenovirus Vaccines Antibody ELISA Kits, Recombinant Proteins, and Antibodies



Adenoviruses (members of the family Adenoviridae) are medium-sized (90–100 nm), non-enveloped viruses with an icosahedral nucleocapsid containing a dsDNA genome. Their name derives from their initial isolation from human adenoids in 1953. The adenovirus is a ubiquitous pathogen of **humans and animals**. Adenoviruses are also known to cause respiratory infections in **horses, cattle, pigs,**

sheep, and goats. Adenoviruses have a broad range of vertebrate hosts; there are 57 accepted human adenovirus types (HAdV-1 to 57) in seven species (**Human adenovirus A to G**; Genus Mastadenovirus (including all human adenoviruses); type species: Human adenovirus C) have been found to cause a wide range of illnesses, from mild respiratory infections in young children to life-threatening multi-organ disease in people with a weakened immune system. Adenoviruses are endemic in all populations throughout the year. The infection is spread both through the aerial-droplet route and the routes characteristic for intestinal infections. The adenovirus infection is the most frequently caused viral disease of the respiratory tract among preschool children (types 1 - 5 and 7). Adenovirus infections cause approximately 15,000 illnesses per year in basic Army trainees. In the past, US military recruits were **vaccinated** against two serotypes of adenotypes, with a corresponding decrease in illnesses caused by those serotypes. The vaccine is no longer manufactured, and there are **currently no vaccines** available to protect against the adenovirus. The new **adenovirus vaccine tablets** offer protection against two strains of the virus, type 4 and type 7, and is administered in tablet form **containing the live virus (32,000 TCID)**. The tablets are intended to be swallowed whole so they can pass through the stomach intact and then release the virus in the intestines.

The serologic tests are particularly important because they document actual infection in the patient and can be applied to large-scale epidemiologic investigations. The CF and ELISA tests measure predominantly the antibodies directed against the group-specific determinants on the **hexon component**. The recommended tests

for measuring type specific antibodies are hemagglutinin inhibition and serum neutralization. The type-specific antigenic determinants of adenoviruses are located at the fibers on the capsid. Because of the ubiquity of the adenoviruses and numerous cross-reactions between related serotypes, seroconversion involving a fourfold or greater rise in antibody infection is necessary to document infection. IgG is the predominant antibody class measured in the serologic tests.



Adenoviruses have long been a popular viral vector for **gene therapy** due to their ability to affect both replicating and non-replicating cells, accommodate large transgenes, and code for proteins without integrating into the host cell genome. Replication-deficient human adenovirus type 5 (**Ad5**) can be produced to high titers in complementing cell lines, such as PER.C6, and is widely used as a vaccine and gene therapy vector. However, preexisting immunity (neutralizing antibodies, NA) against Ad5 hampers consistency of gene transfer, immunological responses, and vector-mediated toxicities. Strategies to bypass NA to Ad5 viruses include switching of adenovirus type and use of animal adenoviruses. Of the 47 types tested, subgroup B viruses Ad35 and Ad11 proved rarely neutralized by human sera. **Ebola Vaccine:** VRC 207 is a phase 1 clinical trial designed to determine the safety, side-effect profile, and immunogenicity of an investigational recombinant cAd3 ebolavirus vaccine (GP from the Zaire and Sudan strains as they are responsible for majority of Ebola cases). The vaccine was developed by Okairo (now owned by GSK), and demonstrated protection in NHP model cAd3 was selected as a vector due to low prevalence of preexisting Ad3 antibodies.

ADI has developed adenovirus (Ad5) antibody ELISA kits to determine the efficacy of various existing vaccines and test new vaccines.

Adenovirus vaccine Related ELISA kits

(See Details at the website) http://4adi.com/commerce/catalog/spcategory.jsp?category_id=2744

Items Description	Species	Antibody Type IgG Cat#	Antibody Type IgM Cat#	Antibody Type IgA Cat#
Human Adenovirus Vaccine Antibody ELISA kits (Whole virus antigen based)	Human	950-110-AHG	950-120-AHM	950-100-AHA
	Mouse	950-130-AMG	950-140-AMM	
	Monkey	950-150-AMG	950-155-AMM	

Item	Catalog#	Product Description	Product Type
Adenovirus Virus antibodies	ADV11-A	Goat Anti-Adenovirus type 2, hexon IgG (reacts with 1-7a, 8, 31, 40-41)	antibodies
	ADV11-FITC	Goat Anti-Adenovirus type 2, hexon IgG-FITC conjugate	antibodies
	ADV12-FITC	Monoclonal Anti-Adenovirus (many isotypes) IgG-FITC conjugate	antibodies
	ADV12-M	Monoclonal Anti-Adenovirus (many isotypes) hexon IgG	antibodies
	ADV13-M	Monoclonal Anti-Adenovirus type 40 IgG, aff pure	antibodies
	ADV14-M	Monoclonal Anti-Adenovirus type 41 IgG, aff pure	antibodies
	ADV15-M	Monoclonal Anti-Adenovirus type 40/41 IgG, aff pure	antibodies
	ADV16-M	Monoclonal Anti-Adenovirus hexon (types 1, 5, 8, 27) IgG	antibodies
	ADV17-M	Monoclonal Anti-Adenovirus type (pan, reacts with all human serotypes) IgG	antibodies
	ADV65-N	Adenovirus (strain Adenoid 6) type 2, (antigens, host MRC-5 cells)	Antigen
ADV66-N	Adenovirus (strain Adenoid 6) type 2 hexons antigens, purified (host Vero cells)	Antigen	

Adenovirus-Vaccine-ELISA-Flr 160525A

