

Adenoviridae

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Adenoviruses are medium-sized, nonenveloped icosahedral viruses containing double-stranded DNA. There are over 51 different serotypes in humans, which are responsible for 5-10% of upper respiratory infections in children, and many infections in adults as well. Viruses of the family Adenoviridae infect various species of animals, including humans. Adenoviruses were first isolated in human adenoids, from which the name is derived, and are classified as group I under the Baltimore classification scheme. Adenoviruses represent the largest nonenveloped viruses, because they are the maximum size able to be transported through the endosome. The virion also has a unique "spike" or fibre associated with each penton base of the capsid that aids in attachment to the host cell via the coxsackie-adenovirus receptor on the surface of the host cell. There are 51 immunologically distinct human adenovirus serotypes that can cause human infections ranging from respiratory disease, and conjunctivitis, to gastroenteritis. Adenoviruses are unusually stable to chemical or physical agents and adverse pH conditions, allowing for prolonged survival outside of the body and water. Adenoviruses are primarily spread via respiratory droplets, however they can also be spread by fecal routes as well. Most infections with adenovirus result in infections of the upper respiratory tract. Adenovirus infections often show up as conjunctivitis, tonsillitis, an ear infection, or croup. Adenoviruses can also cause gastroenteritis. A combination of conjunctivitis and tonsillitis is particularly common with adenovirus infections. Some children can develop adenovirus bronchiolitis or pneumonia, both of which can be severe. In babies, adenoviruses can also cause coughing fits that look almost exactly like whooping cough. Adenoviruses can also cause viral meningitis or encephalitis. Rarely, adenovirus can cause cystitis. Most people recover from adenovirus infections by themselves, but people with immunodeficiency sometimes die of adenovirus infections, and rarely even previously healthy people can die of these infections. Adenoviruses are often transmitted by coughed-out droplets, but can also be transmitted by contact with an infected person, or by virus particles left on objects such as towels and faucet handles. Some people with adenovirus gastroenteritis may shed the virus in their stools for months after getting over the symptoms. The virus can be passed from one person to another through some sexual practices, and through water in swimming pools that do not have enough chlorine in them. As with many other illnesses, good handwashing is one way to lessen the spread of adenoviruses from one person to another. Heat and bleach will kill adenoviruses on objects. As with all viruses, there are no antibiotics that help with an adenoviral infection, so treatment is largely directed at the symptoms. A doctor may give antibiotic eyedrops for conjunctivitis, since it takes a while to test to see if the eye infection is bacterial or viral and to help prevent secondary bacterial infections. 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. Good hygiene, including handwashing, is still the best way to avoid picking up the adenovirus from an infected person. ([From the Wikipedia article Adenoviridae.](#))

Recent Publications on Adenoviridae:



- [S-phase kinase-associated protein-2 \(Skp2\) promotes vascular smooth muscle cell proliferation and neointima formation in vivo.](#)
*OBJECTIVE: Vascular smooth muscle cell (VSMC) proliferation plays an...*13th November, 2009
 Department of Cardiovascular Medicine and Medical Research, Mackay- J Vasc Surg. 2009
 Nov;50(5):1135-42. ([DOI Direct Link](#))
- [Genetic silencing of Nox2 and Nox4 reveals differential roles of these NADPH oxidase homologues in the vasopressor and dipsogenic effects of brain angiotensin II.](#)
*The renin-angiotensin system exerts a tremendous influence over fluid...*13th November, 2009
 Department of Cell and Developmental Biology, Weill Cornell Medical- Hypertension. 2009
 Nov;54(5):1106-14. Epub 2009 Oct 5. ([DOI Direct Link](#))
- [Effect of recombinant placental growth factor 2 on hypertension induced by full-length mouse soluble fms-like tyrosine kinase 1 adenoviral vector in pregnant mice.](#)
*The first aim of our study was to develop a pregnant mouse model for...*13th November, 2009
 Department of Obstetrics and Gynecology, Jichi Medical University School- Hypertension. 2009
 Nov;54(5):1129-35. Epub 2009 Sep 28. ([DOI Direct Link](#))
- [Efficient inhibition of hepatitis B virus replication in vivo, using polyethylene glycol-modified adenovirus vectors.](#)
*Achieving safe delivery of anti-hepatitis B virus (HBV) RNA interference...*11th November, 2009
 Department of Molecular Medicine and Hematology, University of the- Hum Gene Ther. 2008
 Nov;19(11):1325-31. ([DOI Direct Link](#))
- [Persistent infection of turkeys with an avirulent strain of turkey hemorrhagic enteritis virus.](#)
*The Virginia avirulent strain (VAS) of turkey hemorrhagic enteritis virus...*11th November, 2009
 Center for Molecular Medicine and Infectious Disease, Virginia-Maryland- Avian Dis. 2009
 Sep;53(3):370-5.
- [In vitro maturation and migration of immature dendritic cells after chemokine receptor 7 transfection.](#)
*Dendritic cells are specialized antigen-presenting cells that regulate...*10th November, 2009
 Institute of Burn Research, Southwest Hospital, State Key Laboratory of- Can J Microbiol. 2009
 Jul;55(7):859-66. ([DOI Direct Link](#))
- [A retrospective investigation of canine adenovirus \(CAV\) infection in adult dogs in Turkey.](#)
*Canine adenovirus (CAV) type 1 and 2, respectively, cause infectious...*5th November, 2009
 Department of Virology, Faculty of Veterinary Medicine, Afyon Kocatepe- J S Afr Vet Assoc. 2009
 Jun;80(2):84-6.
- [Regulation of vascularization by hypoxia-inducible factor 1.](#)
*Vascularization and vascular remodeling represent critical adaptive...*3rd November, 2009
 Vascular Program, Institute for Cell Engineering; McKusick-Nathans- Ann N Y Acad Sci. 2009
 Oct;1177:2-8. ([DOI Direct Link](#))
- [Retrograde viral vector-mediated inhibition of pontospinal noradrenergic neurons causes hyperalgesia in rats.](#)
*Pontospinal noradrenergic neurons form a component of an endogenous...*31st October, 2009
 Department of Physiology & Pharmacology, University of Bristol, Bristol- J Neurosci. 2009 Oct
 14;29(41):12855-64. ([DOI Direct Link](#))
- [Mineralized tissue formation by BMP2-transfected pulp stem cells.](#)
*Previously, in vitro differentiation of odontoblasts was shown for dental...*30th October, 2009
 Key Lab for Oral Biomedical Engineering of Ministry of Education and- J Dent Res. 2009
 Nov;88(11):1020-5. ([DOI Direct Link](#))
- [Ca/calmodulin kinase II differentially modulates potassium currents.](#)
*BACKGROUND: Potassium currents contribute to action potential duration...*30th October, 2009
 Department of Cardiology and Pneumology, Georg-August-University- Circ Arrhythm Electrophysiol.
 2009 Jun;2(3):285-94. Epub 2009 Apr 17. ([DOI Direct Link](#))
- [RNA interference inhibitors of hepatitis B virus.](#)
*Previously, we showed that short hairpin RNAs (shRNAs) targeting hepatitis...*23rd October, 2009
 Department of Internal Medicine, University of Iowa School of Medicine,- Ann N Y Acad Sci. 2009
 Sep;1175:15-23. ([DOI Direct Link](#))

- [\[The infection of dendritic cells by recombinant adenoviral vector carrying HBsAg-HSP70 chimeric gene and its biological characteristics observations\]](#)
OBJECTIVE: To test the infection efficiency of recombinant adenoviral... 21st October, 2009
 The Eighth Hospital of Guangzhou City, China.- Zhonghua Shi Yan He Lin Chuang Bing Du Xue Za Zhi. 2009 Feb;23(1):29-31.
- [Recombinant vectors as influenza vaccines.](#)
The antiquated system used to manufacture the currently licensed... 14th October, 2009
 Department of Microbiology, Mount Sinai School of Medicine, New York, NY- Curr Top Microbiol Immunol. 2009;333:243-67. ([DOI Direct Link](#))

BioNews Results for Adenoviridae

- [Cancer Gene Therapy Vaccines: Researchers from School of Medicine publish findings in cancer gene therapy vaccines](#)
NewsRX: Nov 3 2009 5:10AM Matching: adenoviridae

Adenoviridae Clinical Trials:



- [Safety, Toxicity and Maximum Tolerated Dose \(MTD\) of One Intravenous IV Injection of Donor Cytotoxic T-Lymphocytes \(CTLs\) Specific for Cytomegalovirus \(CMV\) and Adenovirus](#)

Adenoviridae Patents:



- 7517520- [Packaging of immunostimulatory oligonucleotides into virus-like particles: method of preparation and use](#)
- 7569217- [Porcine adenovirus E1 and E4 regions](#)
- 7569383- [Chimeric flavivirus vectors](#)
- 7569384- [Albumin fusion proteins](#)
- 7569553- [Nucleic acid compositions for stimulating immune responses](#)
- 7569681- [Caterpillar gene family](#)
- 7572442- [Selected antibody compositions for binding to aminophospholipids](#)
- 7572448- [Combined cancer treatment methods using selected antibodies to aminophospholipids](#)
- 7572601- [Compositions and methods for determining oocyte development potential](#)
- 7572618- [Polynucleotides encoding novel PCSK9 variants](#)

- 7572628- [Eukaryotic layered vector initiation systems](#)
- 7563589- [Reconstituted histone methyltransferase complex and methods of identifying modulators thereof](#)
- 7560278- [Methods to culture circovirus](#)
- 7553816- [p-amidobenzylethers in drug delivery agents](#)
- 7517861- [Immunostimulatory nucleic acid molecules](#)
- 7521063- [Multiple CPG oligodeoxynucleotides and their use to induce an immune response](#)
- 7521424- [Albumin fusion proteins](#)
- 7524828- [Immunostimulatory nucleic acid molecules](#)
- 7527798- [Composition and method for preventing or treating a virus infection](#)
- 7534424- [Method of enhancing delivery of a therapeutic nucleic acid](#)
- 7534434- [Glycolipids and analogues thereof as antigens for NK T cells](#)
- 7541434- [Polypeptide for a TRP channel family member, TRP-PLIK2, and splice variants](#)
- 7547436- [Receptor specific transepithelial transport of therapeutics](#)
- 7550296- [Generation of replication competent viruses for therapeutic use](#)
- 7575918- [Tissue-specific and pathogen-specific ribozymes](#)
- 7576066- [Nucleic acid compositions for stimulating immune responses](#)
- 7598028- [Compositions and methods for detecting and treating prostate disorders](#)
- 7598052- [Expression profile of thyroid cancer](#)
- 7598345- [Immunostimulatory compositions and methods](#)
- 7598348- [Adiponectin receptor variant, AdipoR2v2](#)
- 7605138- [Nucleic acid compositions for stimulating immune responses](#)
- 7608255- [Replication-competent anti-cancer vectors](#)
- 7608699- [Synthetic nuclear localization signal derived from lentiviral integrase and methods of use thereof](#)
- 7611704- [Compositions and methods for treating viral infections using antibodies and immunoconjugates to aminophospholipids](#)
- 7611868- [Recombinant modified adenovirus fiber protein](#)
- 7615223- [Selected immunoconjugates for binding to aminophospholipids](#)
- 7597890- [Methods and compositions for diagnosing lung cancer](#)
- 7595038- [Methods of treatment using antibodies to follistatin-3](#)
- 7592140- [2', 5'-oligoadenylate phosphodiesterase](#)
- 7578970- [Methods of inhibiting growth of microorganisms using disinfectant compositions comprising orange oil mixtures](#)
- 7579181- [Purification of adenovirus and AAV](#)
- 7582621- [Boron-containing small molecules](#)
- 7583379- [Surface enhanced raman spectroscopy \(SERS\) systems and methods of use thereof](#)
- 7588768- [Attenuated negative strand viruses with altered interferon antagonist activity for use as vaccines and pharmaceuticals](#)
- 7588774- [Molecules enhancing dermal delivery of influenza vaccines](#)
- 7588907- [Ubiquitin mediated fluorescence complementation assay](#)
- 7589069- [Replication-competent anti-cancer vectors](#)
- 7589078- [Anti-viral nucleoside analogs and methods for treating viral infections, especially HIV infections](#)
- 7592010- [Albumin fusion proteins](#)
- 7615539- [Nucleic acid-lipophilic conjugates](#)

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