



# Adenovirus

*IHC of Adenovirus on an FFPE Infected Tissue*

**Description** Adenoviruses belong to the family Adenoviridae. They infect both humans and animals. Adenovirus was first isolated in human adenoids (tonsils), from which the name is derived. Adenoviruses are classified as group I under the Baltimore classification scheme. They are medium-sized (60-90 nm), non-enveloped icosahedral viruses containing double-stranded DNA. There are 51 immunologically distinct human Adenovirus serotypes (6 species: Human Adenovirus A through F) that can cause human infections ranging from respiratory disease (mainly species HAdV-B and C), and conjunctivitis (HAdV-B and D), to gastroenteritis (HAdV-F serotypes 40 and 41).

Symptoms of respiratory illness caused by Adenovirus infection range from the common cold to Pneumonia, Croup, and Bronchitis. Patients with compromised immune systems are especially susceptible to severe complications of Adenovirus infection. This antibody blend will react with all 51 serotypes of Adenovirus.

<b>Antibody Type</b>	Mouse Monoclonal	<b>Clone</b>	20/11 and 2 /6
<b>Isotype</b>	IgG1	<b>Reactivity</b>	Paraffin, Frozen
<b>Localization</b>	Cytoplasmic, Nuclear	<b>Control</b>	Infected Tissue
<b>Storage</b>	Store at 2°-8°C	<b>Stability</b>	2 years

For long-term storage of the concentrated antibody, it is recommended that aliquots of the antibody be frozen at -20°C in glycerol 50% (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Dilute using an antibody diluent such as **ImmunoDetector Protein Block/Antibody Diluent** (BSB 0040 and BSB 0041) or **ImmunoDNA Background Blocker** (BSB 0103-BSB 0107).

**Presentation** Adenovirus is a cocktail of mouse monoclonal antibodies derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

Availability	Catalog No.	Antibody Type	Dilution	Volume/QTY
	BSB 5036	Prediluted	Ready-To-Use	3.0 ml
	BSB 5037	Prediluted	Ready-To-Use	7.0 ml
	BSB 5038	Prediluted	Ready-To-Use	15.0 ml
	BSB 5039	Concentrated	1:20-1:50	0.1 ml
	BSB 5040	Concentrated	1:20-1:50	0.5 ml
	BSB 5041	Concentrated	1:20-1:50	1.0 ml
	BSB 5042	Control Slides		5

**Note:** For concentrated antibodies, please centrifuge prior to use to ensure recovery of all product.

- References**
1. Wu, Nemerow, *Trends Microbiol.* 2004;12:162-168.
  2. Meier, Greber, *J Gene Med.* 2004;6:S152-S163.
  3. Fenner, Frank J, et al. *Veterinary Virology (2nd ed.)*. Academic Press, Inc. 1993

**Protocol** Suggested protocol on reverse

## Recommended Immunohistochemical Protocol

- Pretreatment**
1. Cut and mount 3-4 micron formalin-fixed paraffin-embedded tissues on positive charged slides.
  2. Air dry for 2 hours at 58° C.
  3. Deparaffinize, dehydrate and rehydrate tissues.
  4. Subject tissues to heat epitope retrieval using a suitable retrieval solution such as **ImmunoDNA Retriever with Citrate** (BSB 0020-BSB 0023) or **EDTA** (BSB 0030-BSB 0033).
  5. Any of three heating methods may be used:
    - a. **Electric Pressure Cooker**  
Place standoff rack at base of pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high, and incubate for 15 minutes. Open and immediately transfer slides to room temperature.
    - b. **Water Bath Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a water bath set at 95°-99° C. Incubate for 30-60 minutes.
    - c. **Conventional Steamer Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a Steamer, cover and steam for 30-60 minutes.
  6. After heat treatment, transfer slides in **ImmunoDNA Retriever with Citrate** or **EDTA** to room temperature and let stand for 15-20 minutes.
  7. Wash slides with IHC wash buffer or DI water.
  8. Continue IHC staining protocol.

## Immunohistochemical Protocol

Step	ImmunoDetector (AP or HRP)	PolyDetector (AP or HRP)
Peroxidase/AP Block	5 minutes	5 minutes
Primary Antibody	30 minutes	45 minutes
Secondary Biotinylated Link	10 minutes	Not Applicable
AP or HRP Label	10 minutes	45 minutes
Substrate-Chromogen	5-10 minutes	10 minutes
Counterstaining	Time varies with counterstain	Time varies with counterstain

