ALPHA DIAGNOSTIC INTERNATIONAL

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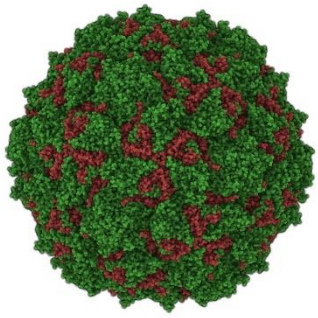
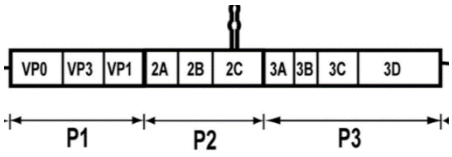
Polio Vaccines Antibody ELISA Kits, Recombinant Proteins, Peptides and Antibodies



Poliomyelitis, often called **polio** or infantile paralysis, is an acute viral infectious disease spread from person to person, primarily via the fecal-oral route. Although around 90% of polio infections cause no symptoms at all, about 3% of cases the virus enters the central nervous system, preferentially infecting and destroying motor neurons, leading to muscle weakness and acute flaccid paralysis.



The term **poliomyelitis** is used to identify the disease caused by any of the **three serotypes of poliovirus**. A laboratory **diagnosis** is usually made based on recovery of poliovirus from a stool sample or a swab of the pharynx. **Antibodies** to poliovirus can be diagnostic, and are generally detected in the blood of infected patients early in the course of infection. Detection of virus in the CSF is diagnostic of paralytic polio, but rarely occurs. **Poliovirus** is structurally similar to other human enteroviruses (coxsackie viruses, echoviruses, and rhinoviruses), which also use immunoglobulin-like molecules to recognize and enter host cells. There are **three serotypes of poliovirus**, **PV1, PV2, and PV3**; each with a slightly different capsid protein. Capsid proteins define cellular receptor

specificity and virus antigenicity. **PV1 is the most common** form encountered in nature, however all three forms are extremely infectious. Wild polioviruses can be found in two continents. As of 2012, PV1 is highly localized to regions in Pakistan and Afghanistan in Asia, and Nigeria, Niger and Chad in Africa. Wild poliovirus type 2 has probably been eradicated; it was last detected in October 1999 in Uttar Pradesh, India. Wild PV3 is found in parts of only two countries, Nigeria and Pakistan. S pecific strains of each serotype are used to prepare **vaccines against polio**. **Inactive polio vaccine (IPV)** is prepared by formalin inactivation of three wild, virulent reference strains, Mahoney or Brunenders (PV1), MEF-1/Lansing (PV2), and Saukett/Leon (PV3). **Oral polio vaccine (OPV)** contains live attenuated (weakened) strains of the three serotypes of poliovirus. Passaging the virus strains in monkey kidney epithelial cells introduces mutations in the viral IRES, and hinders (or attenuates) the ability of the virus to infect nervous tissue.

Poliovirus capsid protein VP1 is one of four structural proteins and its antigenic The N-termini of most EV VP1 proteins contain highly conserved immunogenic regions that are recognized by sera from most EV-infected patients. Poliovirus VP1 has been considered a candidate for **recombinant poliovirus subunit vaccine.**

ADI has developed antibody ELISA kits to determine the efficacy of various existing vaccines and test new vaccines. Recombinant Polio VP1 is also utilized to develop new generation of ELISA Kits.

Polio Vaccine ELISA kits

Items Description	Species	Antibody Type IgG Cat#	Antibody Type IgM Cat#
Polio virus 1-3 (**IPOL/IPV/OPV** Vaccines) Antibody ELISA Kits	Human	970-100-PHG	
	Mouse	970-120-PMG	
	Rabbit	970-130-PRG	970-130-PRM
	Monkey	970-150-PMG	
	Rat	970-180-PRG	
Polio virus 1 (Sabin) VP1 protein Antibody ELISA Kits	Mouse	970-160-VPG	
	Rabbit	970-165-VPG	
	Human	970-170-VPG	

Polio Related Antibodies, Peptides, and Recombinant Proteins Ordering Information

Catalog#	Product Description	Product Type
POLV11-S	Anti-Poliomyelitis Viruses 1-3 (IPOL/IPV vaccine: Mahoney, MEF-1, and Saukett) antiserum	Antibodies
POLV12-M	Mouse monoclonal Anti-Poliomyelitis Virus 1-3 IgG, aff pure	Antibodies
POLV13-A	Anti-Poliomyelitis Virus 1-3 IgG	Antibodies
POLV13-FITC	Anti-Poliomyelitis Virus 1-3 IgG-FITC Conjugate	Antibodies
POLV13-HRP	Anti-Poliomyelitis Virus 1-3 IgG-HRP Conjugate	Antibodies
POLV14-M	Mouse monoclonal Anti-Poliomyelitis Virus 1 IgG, aff pure	Antibodies
POLV15-R-10	Recombinant (E. Coli) Poliomyelitis Virus 1 Viral Protein 1 (Sabin; POLV1-VP1, 302-aa; full length, >95%)	Pure Protein
POLV15-S	Anti-Poliomyelitis Virus 1 Viral Protein 1 (Sabin; POLV1-VP1) antiserum	Antibodies
POLV16-S	Anti-Poliomyelitis Virus 1 (LSc,2ab strain) antiserum, neutralizing	Antibodies
POLV21-M	Mouse monoclonal Anti-Poliomyelitis Virus 2 IgG, aff pure	Antibodies
POLV22-S	Anti-Poliomyelitis Virus 2 (P712,Ch,2ab strain) antiserum, neutralizing	Antibodies
POLV23-S	Anti-Poliomyelitis Virus 2 (sabin strain, native) antiserum, neutralizing	Antibodies
POLV31-M	Mouse monoclonal Anti-Poliomyelitis Virus 3 IgG, aff pure	Antibodies
POLV32-S	Anti-Poliomyelitis Virus 3 (Leon1,Ch,2ab strain) antiserum, neutralizing	Antibodies
POLV33-S	Anti-Poliomyelitis Virus 3 (sabin strain, native) antiserum, neutralizing	Antibodies
PVR15-R-25	Recomb. (HEK) Mouse Poliovirus receptor (PVR or CD155 or Necl-5) protein (1-345aa, hIgG1-Fc-his>95%)	Pure Protein
PVR16-R-50	Recombinant (HEK) Mouse Poliovirus receptor (PVR or CD155 or Necl-5) protein (1-345aa, His-tag, >95%)	Pure Protein
PVR17-R-25	Recomb. (HEK) Human Poliovirus receptor (PVR or CD155 or Necl-5) protein (1-345aa, hIgG1-Fc-his	Pure Protein
PVR18-R-25	Recombinant (HEK) HUman Poliovirus receptor (PVR or CD155 or Necl-5) protein (1-345aa, his-tag, >95%)	Pure Protein

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