

RecombiVirus Anti-Epizootic Diarrhea of Infant Mice (EDIM)/Rotavirus ELISA Kits

RecombiVirus Human EDIM/rotavirus VP6 antibody (IgA/IgG/IgM) ELISA Kits are specifically designed to detect and measure anti-EDIM/Rotavirus antibodies in sera of animals of humans. Samples are typically used at 1:100 or more in the ELISA test (115 min, at room temp). Isotype-specific ELISA kits measures only one isotype (IgA, IgG or IgM). **RecombiVirus ELISAs** use purified recombinant viral antigens for better specificity, sensitivity, and to avoid handling of live/inactivated virus. **There is no virus or viral extract used in the kit.** ELISA kits for mouse, rat, and human samples are currently available but other species can be requested as special order. All ELISAs follow the similar design so this brief brochure represents general features of anti-EDIM VP6 protein antibody ELISAs. Detailed manual is provided with the kit.

High + (High Antibody +ve control), -
Ve control, Cut-off controls supplied in
the kits; Animal population (A-H)

EDIM/VP6

RecombiVirus Anti-EDIM/Rotavirus VP6 antibodies (IgA, IgG, IgM) ELISA Kit Features

- Highly purified recombinant (E. coli) murine EDIM-VP6 full length (47 Kda) coated ELISA strip plates (96 tests; 8 wells x12); Stability ~6-12 months.
- Species specific (mouse, rat or human) Anti-EDIM-VP6 IgA/IgG/IgM -ve and positive controls.
- Samples 100 ul (1:100 or more) 3 incubations at room temp (60+30+15 min) or 105 min assay.

Specificity: Murine EDIM-VP6 protein is highly conserved in bovine, human Rotavirus A, simian, Feline, caprine, and porcine rotaviruses VP6 (96%). High levels of anti-EDIM VP6 have been observed in experimental or natural infection with EDIM/rotavirus in animals and humans.

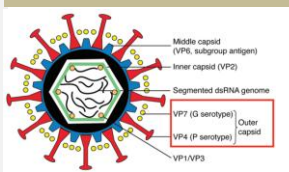
All ELISA kits follow the same basic design, General assay procedure etc.

- Step 1.** Pipet **100 ul** each of **pre-diluted quantitative standards, positive control**, and samples (diluted 1:100 or higher).
- Step 2.** Mix gently for 5-10 seconds and incubate for **60 min at room temp.**
- Step 3.** **Wash 3X using supplied wash buffer.** Add **100 ul of Antibody-HRP Conjugate** to all wells, mix by gentle mixing for 5-10 seconds and incubate at room temperature for **30 min.**
- Step 4.** **Wash 4X using supplied wash buffer.** Add **100 ul of HRP Substrate** solution to all wells, mix gently, and incubate at room temperature for **15 min.** Blue color develops in standards and positive samples.
- Step 5.** Pipet **100 ul of stop solution** into all tubes, mix gently (blue color turns yellow). **Measure OD at A450 nm.** Positive samples can be observed visually and the antibody concn calculated from the standard curve.

General Information

Animals, just like humans, are susceptible to various bacterial and viral infections. Animals are used widely in biomedical research. Laboratory animal infections may compromise the health of the animals and ultimately the research data derived from them. Animals or animal-derived products (purified protein or cell lines) are transported from one part of the world to another in a matter of days. So there is great potential for the diseases to spread very quickly. Many infections are asymptomatic and without any overt clinical symptoms. Detection of microbial infections has relied largely on serological screening and presence of microbial antigens or antibodies.

Diarrhea in young laboratory mice is often caused by mouse rotavirus, also called epizootic diarrhea of infant mice (**EDIM**). This virus is highly contagious and is transmitted via contaminated bedding, airborne dust, and through contact with infected mice. These animals present with watery, mustard-colored stools, lethargy, and distended abdomens. **Rotavirus infections** are the primary causes of severe gastroenteritis in young children and are the cause of nearly one million deaths worldwide each year. Diagnosis is usually based on serology, via ELISA or IFA or both.



EDIM or rotavirus is a genus of dsRNA virus in the family Reoviridae. There are five species of this virus (A-E). Rotavirus A, the most common, causes more than 90% of infections in humans. Rotaviruses infect the young of many species of animals and they are a major cause of diarrhoea in wild and reared animals worldwide. As a pathogen of livestock, notably in young calves and piglets, rotaviruses cause economic loss to farmers because of costs of treatment associated with high morbidity and mortality rates. The genome of rotavirus consists of 11 unique double helix molecules of RNA which are 18.5kb in total. Each helix, or segment, is a gene, numbered 1 to 11 by decreasing size. Each gene codes for one protein, except genes 9, which codes for two. The RNA is surrounded by a three-layered icosahedral protein capsid. There are six viral structural capsid proteins (VP1-4, VP6-7) that form the virus particle (virion). In addition to the VPs, there are six nonstructural proteins (NSPs), that are only produced in cells infected by rotavirus (NSP1-6). VP6 forms the bulk of the capsid. It is highly antigenic and can be used to identify rotavirus infections. VP6 protein of the murine rotavirus strain EDIM are able to elicit protection against rotavirus shedding in the adult mouse model. **VP6-based human vaccines** are in active clinical trials.

Anti-EDIM/Rotalvirus Related ELISA kits and other reagents.

(See Details at the website) http://4adi.com/commerce/catalog/spcategory.jsp?category_id=2758

Items Description	Species	IgG Specific Cat #	IgM Specific Cat#	IgA Specific Cat#
RecombiVirus Epizootic diarrhea of infant mice (EDIM)/rotavirus VP6 protein Antibody ELISAs	Human	AE-300430-1	AE-300431-1	AE-300432-1
	Mouse	AE-300400-1	AE-300401-1	AE-300402-1
	Rat	AE-300410-1		
	Bovine	AE-300450-1	AE-300451-1	AE-300452-1
	Sheep	AE-300460-1		

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