Meningitis Vaccines: Antibody ELISA Kits, Recombinant Proteins, Peptides and Antibodies

Meningococcal meningitis, a form of meningococcal disease, is a serious bacterial infection. Unlike viral meningitis, it can potentially kill an otherwise healthy young person within a few days after the first symptoms appear. Meningitis is inflammation of the protective membranes covering the brain and spinal cord, known collectively as the meninges. The inflammation may be caused by infection with viruses, bacteria, or other microorganisms, and less commonly by certain drugs. Meningitis can be life-threatening because of the inflammation's proximity to the brain and spinal cord; therefore the condition is classified as a medical emergency.

MenVeo (Novartis)

Menactra (Sanofi)

Meningitis Bacterial immunogenic polysaccharides (Red color) are used as vaccine or after conjugating it with Diphtheria Toxoid or its mutant CRM197.

Meningococcal vaccine is a vaccine used against Meningococcus, a bacterium that causes meningitis, meningococcemia, septicemia, and rarely carditis, septic arthritis, or pneumonia. Neisseria meningitidis has 13 clinically significant serogroups. These are classified according to the antigenic structure of their polysaccharide capsule. Six serogroups, A, B, C, Y, W135 and X are responsible for virtually all cases of the disease in humans. There are currently three vaccines available in the US to prevent meningococcal disease, all quadrivalent in nature, targeting serogroups A, C, W-135 and Y:

- Two conjugate vaccines (MCV-4), Menactra (Polysaccharides conjugated to Diphtheria Toxoid) and Menveo (Conjugated to toxoid diphtheria mutant CRM197).
- One polysaccharide vaccine (MPSV-4), Menomune, produced by Sanofi Pasteur.
- Mencevax (GlaxoSmithKline, CRM197 conjugate) and NmVac4-A/C/Y/W-135 (JN-International Medical Corporation, conjugated to Diphtheria Toxoid) are used worldwide, but have not been licensed in the United States.

The duration of immunity mediated by Menomune (MPSV4) is three years or less in children aged under 5 because it does not generate memory T cells. For this reason, Menomune is suitable for travelers requiring short-term protection, but not for national public health prevention programs. Menveo and Menactra contain the same antigens as Menomune, but the antigens are conjugated to a diphtheria-toxoid polysaccharide–protein complex, resulting in anticipated enhanced duration of protection, increased immunity with booster vaccinations, and effective herd immunity. Diphtheria Toxoid when conjugated to bacteria polysaccharides acts as carrier protein and adjuvant. The antibodies are produced against both the carbohydrate part and the toxoid. ADI has developed antibody ELISA kits to determine the antibody titer against the polysaccharide as well as the toxoid. These kits will help determine the efficacy of various existing vaccines and test new vaccines. ADI is further expanding the antibody ELISAs to measure IgG (and IgG1, IgG2a, IgG3, IgG4) and IgM classes.

Meningitis vaccine Related ELISA kits

Items Description	Species	IgG Specific Cat#	IgM Specifc Cat#
Meningitis Vaccine **Group A Oligosaccharides**-CRM197 conjugated vaccine antibody ELISA Kits	Human	600-300-100	
	Mouse	600-300-200	
	Rabbit	600-310-300	
Meningitis Vaccine **Group CWY Oligosaccharides**-CRM197 conjugated vaccine antibody ELISA Kits	Human	600-300-105	
	Mouse	600-300-205	
	Rabbit	600-320-305	
Meningitis Vaccine **Group ACWY Oligosaccharides**-CRM197 conjugated vaccine antibody ELISA Kits	Human	600-300-115	
	Mouse	600-310-215	
Note: ADI also has separate ELISA kits to monitor antibodies to Diphtheria Toxoid.	Rabbit	600-330-315	

Meningitis vaccine Related Antibodies and Reagents

Item	Catalog#	Product Description	Product Type
Anti-Meningococcal Group	MENA11-S	Rabbit Anti-Meningococcal **Group A** Oligosaccharides-Diphtheria CRM197 antiserum	antiserum
	MENA12-S	Rabbit Anti-Meningococcal **Group CWY** Oligosaccharides-Diphtheria CRM197 antiserum	antiserum
	MENA13-S	Rabbit Anti-Meningococcal **Group ACWY** Oligosaccharides-Diphtheria CRM197 antiserum	antiserum
Antibodies and antigens	MENA14-F	Anti-Meningococcal **Group ABC** serotypes antigens IgG-FITC conjugate	Antibodies
	MENA14-HP	Anti-Meningococcal **Group ABC** serotypes antigens IgG-HRP conjugate	Antibodies
	MENA14-UL	Anti-Meningococcal **Group ABC** serotypes antigens IgG, Unlabeled	Antibodies

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