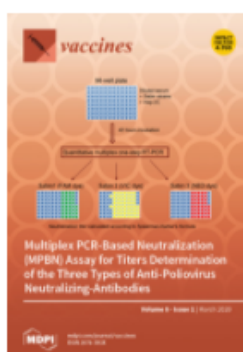


Multiplex PCR-Based Neutralization (MPBN) Assay for Titers Determination of the Three Types of Anti-Poliovirus Neutralizing-Antibodies

Volume 8 · Issue 1 | March 2020

Vaccines, Volume 8, Issue 1 (March 2020) – 144 articles



Cover Story ([view full-size image](#)): Multiplex PCR-based neutralization (MPBN) assay for anti-poliovirus antibodies' titration uses a quantitative multiplex one-step RT-PCR as a read out instead of the cytopathic effect used in conventional neutralization assay. The MPBN is the first neutralization assay that specifically titrates anti-poliovirus antibodies against the three serotypes of the virus in the same reaction, and it can be completed in two to three days instead of the ten days needed for the conventional assay, as well as automated for high-throughput implementation. [View this paper](#)

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Recombinant Rabies Virus Overexpressing OX40-Ligand Enhances Humoral Immune Responses by Increasing T Follicular Helper Cells and Germinal Center B Cells

by Yingying Li, Ling Zhao, Baokui Sui, Zhaochen Luo, Yachun Zhang and Yong Wang

Vaccines 2020, 8(1), 144; <https://doi.org/10.3390/vaccines8010144> - 23 Mar 2020

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Abstract Rabies, caused by the rabies virus (RABV), remains a serious threat to public health in most countries. Development of a single-dose and efficacious rabies vaccine is the most important method to restrict rabies virus transmission. Costimulatory factor OX40-ligand (OX40L) plays a crucial role [...] [Read more](#).

(This article belongs to the Special Issue [Genomic Medicine and Advances in Vaccine Technology and Development in the Developing and Developed World](#))

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Vaccination with Consensus H7 Elicits Broadly Reactive and Protective Antibodies against Eurasian and North American Lineage H7 Viruses

by Gendael M. Fadlallah, Fuying Ma, Zherui Zhang, Mengchan Hao, Juefu Hu, Mingxin Li, Haizhou Liu, Biling Liang, Yanfeng Yao, Rui Gong, Bo Zhang, Di Liu and Jianjun Chen

Vaccines 2020, 8(1), 143; <https://doi.org/10.3390/vaccines8010143> - 23 Mar 2020

Cited by 3 | Viewed by 1186

Abstract H7 subtype avian influenza viruses have caused outbreaks in poultry, and even human infection, for decades in both Eurasia and North America. Although effective vaccines offer the best protection against avian influenza viruses, antigenically distinct Eurasian and North American lineage subtype H7 viruses [...] [Read more](#).

(This article belongs to the Special Issue [Development of Cross-Protective Vaccines](#))

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Usp18 Expression in CD169⁺ Macrophages is Important for Strong Immune Response after Vaccination with VSV-EBOV

by Sarah-Kim Friedrich, Rosa Schmitz, Michael Bergerhausen, Judith Lang, Lamin B. Cham, Vikas Duhan, Dieter Häussinger, Cornelia Hardt, Marylyn Addo, Marco Prinz, Kenichi Asano, Philipp Alexander Lang and Karl Sebastian Lang

Vaccines 2020, 8(1), 142; <https://doi.org/10.3390/vaccines8010142> - 23 Mar 2020














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Abstract Ebola virus epidemics can be effectively limited by the VSV-EBOV vaccine (Ervebo) due to its rapid protection abilities; however, side effects prevent the broad use of VSV-EBOV as vaccine. Mechanisms explaining the efficient immune activation after single injection with the VSV-EBOV vaccine remain [...] [Read more](#).

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Subcutaneous Immunization of *Leishmania HSP70-II* Null Mutant Line Reduces the Severity of the Experimental Visceral Leishmaniasis in BALB/c Mice

by  José Carlos Solana,  Laura Ramírez,  Emma CL Cook,  Elena Hernández-García,  Silvia Sacristán,  M. Elena Martín,  Víctor Manuel González,  Rosa María Reguera,  Rafael Balaña-Fouce,  Manuel Fresno,  José María Requena,  Salvador Iborra and  Manuel Soto

Vaccines 2020, 8(1), 141; <https://doi.org/10.3390/vaccines8010141> - 23 Mar 2020







Cited by 8 | Viewed by 1395

Abstract *Leishmania infantum* parasites cause a severe form of visceral leishmaniasis in human and viscerocutaneous leishmaniasis in dogs. Recently, we reported that immunization with an attenuated *L. infantum* cell line, lacking the *hsp70-II* gene, protects against the development of murine cutaneous leishmaniasis. In this [...] [Read more](#).

(This article belongs to the Special Issue [Development of Cross-Protective Vaccines](#))

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Protective Effect of Seasonal Influenza Vaccination in Elderly Individuals with Disability in Taiwan: A Propensity Score–Matched, Nationwide, Population-Based Cohort Study

by  Yu-Chia Chang,  Huang Yu-Tung,  Long-Sheng Chen,  Ho-Jui Tung,  Kuang-Hua Huang,  Ernawaty Ernawaty and  Szu-Yuan Wu

Vaccines 2020, 8(1), 140; <https://doi.org/10.3390/vaccines8010140> - 22 Mar 2020

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Abstract This is the first and largest population-based cohort study to demonstrate that influenza vaccination reduced all-cause mortality and influenza-related hospitalization in elderly individuals with a disability. Purpose: To estimate the protective effect of influenza vaccination in elderly individuals with a disability by conducting [...] [Read more](#).

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Recent Progress on the Versatility of Virus-Like Particles

by  Ciyang Qian,  Xinlin Liu,  Qin Xu,  Zhiping Wang,  Jie Chen,  Tingting Li,  Qingbing Zheng,  Hai Yu,  Ying Gu,  Shaowei Li and  Ningshao Xia

Vaccines 2020, 8(1), 139; <https://doi.org/10.3390/vaccines8010139> - 20 Mar 2020

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Abstract Virus-like particles (VLPs) are multimeric nanostructures composed of one or more structural proteins of a virus in the absence of genetic material. Having similar morphology to natural viruses but lacking any pathogenicity or infectivity, VLPs have gradually become a safe substitute for inactivated [...] [Read more](#).

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From Bivariate to Multivariate Analysis of Cytometric Data: Overview of Computational Methods and Their Application in Vaccination Studies

by  Simone Lucchesi,  Simone Furini,  Donata Medaglini and  Annalisa Ciabattini

Vaccines 2020, 8(1), 138; <https://doi.org/10.3390/vaccines8010138> - 20 Mar 2020

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Abstract Flow and mass cytometry are used to quantify the expression of multiple extracellular or intracellular molecules on single cells, allowing the phenotypic and functional characterization of complex cell populations. Multiparametric flow cytometry is particularly suitable for deep analysis of immune responses after vaccination, [...] [Read more](#).

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