Website address:
https://www.gesundheitsindustrie-bw.de/en/article/press-release/curevacs-covid-19-vaccine-candidate-cvncov-demonstrates-protection-against-sars-cov-2-b1351-variant-south-african-variant-precli

CureVac's COVID-19 Vaccine Candidate, CVnCoV, Demonstrates Protection Against SARS-CoV-2 B.1.351 Variant (South African Variant) in Preclinical Challenge Study

CureVac N.V. (Nasdaq: CVAC), a global biopharmaceutical company developing a new class of transformative medicines based on messenger ribonucleic acid (mRNA), today announced the publication of preclinical data demonstrating that their COVID-19 vaccine candidate, CVnCoV, protects against challenge infections with the SARS-CoV-2 Variant of Concern B.1.351 (also referred to as the "South African" variant) and a strain of the original SARS-CoV-2 B1 lineage (BavPat1) in a transgenic mouse model.

Consistent with available variant studies, the neutralization capacity of robust antibody titers was shown to be impacted by the B.1.351 variant compared to the original strain. However, vaccinated animals were fully protected from lethal challenge infections with both strains. The full manuscript of the preclinical data is available on the bioRxiv preprint server.

"Emergence of new SARS-CoV-2 strains, which exhibit the potential to escape an existing SARS-CoV-2 immunity, pose an increasing risk to the progress of current global immunization efforts," said Igor Splawski, Ph.D., Chief Scientific Officer of CureVac. "To our knowledge, this is the first challenge study in a human ACE2 transgenic mouse model of severe disease that shows complete protection against one of the most threatening virus variants."

Within the study, transgenic mice expressing the human ACE2 receptor, the receptor through which SARS-CoV-2 enters human cells, were immunized with 8µg of CVnCoV per dose, following a two-dose vaccination schedule at day 0 and day 28. Vaccination resulted in robust antibody responses and complete protection (100% survival) against the original SARS-CoV-2 strain and also B.1.351 (variant strain first identified in South Africa) challenge infections. CVnCoV vaccination efficiently blocked viral replication of B.1.351 in the lower respiratory tract and brain, and reduced viral replication in the upper respiratory tract in vaccinated and challenged animals.

Press release

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Further information

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