

## Safety and potency test for PV and ERA based cell culture anti-rabies vaccine produced in Ethiopia

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Two rabies vaccinal strains (PV and ERA) used to produce virus suspension propagated on Vero and BHK-21 cell lines in Ethiopia. Potency and safety of the vaccine studied after inactivation with formalin. Safety test performed to access if the vaccine have residual virulent left during inactivation or to detect any bacteriological contaminant present in the crude vaccine. According to the test, no residual virus or bacterial contaminant detected. Potency test determines the degree of protection conferred by the vaccine in immunized mice challenged with challenge virus strain. This test was performed using National Institutes of Health (NIH) potency test. Mice were immunized at day 0 and 7 with five different concentrations of test vaccine and four different concentrations of control vaccine, 16 mice in each dilution. The control vaccine used was VeroRab vaccine which was produced by Sanofi Pasteur. Standard CVS strain obtained from CDC was used as challenge virus. Mice were challenged on 14<sup>th</sup> day of immunization with challenge virus strain (CVS-11) of 25 MLD<sub>50</sub>/0.03 ml intra-cerebrally. The mice were observed for 14 days after challenging and death recorded for each dilution separately. Potency result calculated using NIH test and 8.32IU/ml for ERA and 2.5 IU/ml for PV results were obtained. Based on WHO recommendation, these vaccines have high potency and upon dilution can be used for animal immunization.

### Biography

Abebe Mengesha has completed his B.Sc. at the age of 22 years from Ambo University and studied M.Sc. at Addis Ababa University College of Health Science at the age of 26. He is working at Ethiopian Health and Nutrition Research Institute, Vaccine and Diagnostic Production as quality control service head. He has published more than 4 papers on the area of vaccine.

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