

## Glanders ELISA Kit

<b>Title of technology</b>	<b>Recombinant antigen based ELISA Kit for diagnosis of Glanders</b>
<p><b>Preamble</b></p> <p>Glanders is a fatal bacterial disease of equines caused by non-motile gram-negative bacterium <i>Burkholderia mallei</i>. The disease in equines is characterized by ulcerating granulomatous lesions of skin and mucous membrane, pneumonia, and septicemia. Because of zoonotic importance of the glanders and frequent occurrence of the disease in parts of Africa, the Middle East, South America, and Asia glanders has attracted renewed research interest and is increasingly recognized worldwide as potential biological weapons. In India, glanders cases have been reported almost in every year since 2006.</p> <p>The Complement Fixation test (CFT) is an OIE prescribed sero-diagnostic method for glanders for international trade of equidae. The analytical performance of the test was found to be heavily depends on CFT antigens used from different commercial source and differences in the recommended protocol. False-negative glanders test results may lead to the introduction of the infectious agent into a glanders free-region and false-positive test results may lead to unnecessary restrictions on international trade of animals leading to financial losses for owners and the equine industry. In order to improve test quality, three recombinant proteins (Hcp1, TssA and TssB) based indirect ELISAs have been developed by NRCE for detection of <i>B. mallei</i> specific antibodies in equines.</p>	
<p><b>Salient features</b></p> <ul style="list-style-type: none"><li>• These kit are recombinant protein(s) based indirect ELISA.</li><li>• These kits were evaluated with large number (n= 2000 to 15000) of equine serum samples obtained from glanders free as well as glanders endemic areas.</li><li>• The diagnostic specificity of the assays were 90-100% and sensitivity of the three assay ranges from 90-99%, respectively.</li><li>• The ELISAs are now being validated in OIE Reference Laboratory on Glanders, Germany according to OIE principles and methods of validation of diagnostic assays.</li></ul>	
<p><b>Stakeholders</b></p> <ul style="list-style-type: none"><li>• Biopharmaceutical companies</li><li>• State Animal Husbandry Departments</li><li>• State Govt Veterinary Biologicals Production Units</li><li>• Small Entrepreneurs</li><li>• Equine farmers</li><li>• Indigenous Horse Societies / Army/ Police Departments</li></ul>	
<p><b>Economic benefits</b></p> <ul style="list-style-type: none"><li>• These kits will help in timely diagnosis of glanders.</li><li>• Combining the higher sensitivity of the ELISA and specificity of the CFT, accuracy of surveillance programmes can be increased for proper detection and elimination of glanders positive animals.</li><li>• It will help in developing control strategies for the diseases.</li></ul>	

**Burkholderia mallei Antibody Detection ELISA Kit**  
Recombinant Hcp1 antigen based ELISA Kit for detection of  
*Burkholderia mallei* specific antibody in equine serum

Developed by



**ICAR-National Research Centre on Equines**

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Serial No.:  
Storage at 4-8°C

Lot No.:

Expiry:

For Veterinary Diagnostic use only

**Burkholderia mallei Antibody Detection ELISA Kit**  
Kit Contents

Label	Content	Quantity	Description
1	Hcp1 antigen-coated microwell plate	One	12x8 wells strips
2	Positive control	100µl	
3	Negative control	100µl	
4	Wash Buffer	50 ml	
5	Sample Diluent Buffer	50 ml	10x concentration
6	Conjugate solution	12 ml	Working solution
7	Substrate Solution	12 ml	Ready to use
8	Stop solution	12 ml	Ready to use



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