

World's First commercial highly sensitive magnetic beads ELISA test for coronaviruses

Genekam Biotechnology AG has developed one of first world's magnetic beads ELISA test as point of care assay for coronaviruses, which is 1000 times more sensitive and can be finished within 50 minutes against the routine ELISA method, which takes hours to be performed and give the results with low sensitivity.

Moreover, it can be performed anywhere in the world against the conventional ELISA and PCR tests, which need special instruments, hence they can be performed only in special laboratories. Cost of Genekam test is Euro 1 against PCR test, where the costs are Euro 8. Magnetic beads are being used in medicine to perform a number of tasks e.g. isolation of RNA and cell separation for development of immunotherapies. Genekam biotechnology AG has been developing a number of solutions based on magnetic beads. ELISA is one of common serological methods, which is being used to detect antibodies as well as antigens for last many decades. ELISA method needs a plastic plate and it takes 7 hours to 2 days to be performed. It needs instruments as the plates must be kept at particular temperatures. Therefore, ELISA is being performed in professional laboratories.

Genekam has developed magnetic beads ELISA, which can be performed in anywhere e.g. in small clinics in the world like in Africa or remote areas of Saudi Arabia as point of care ELISA can help to detect the cases of coronaviruses as early as possible and the results can be read with naked eyes also along with reading the results with the machine This method has biggest advantage against PCR method, where one has to collect the sample and send to laboratory to perform the diagnosis leading to loss of valuable time as during this time, the viruses spread while treatment and prevention cannot start properly. Genekam magnetic beads ELISA is going to change this. Magnetic beads ELISA is far better than rapid tests, which have very low sensitivity against ELISA even and problem of cross reactivity as this month studies conducted in Germany shows that rapid tests from one of biggest biotech company has 70% sensitivity for coronaviruses.

Genekam magnetic beads ELISA can change this because remote rural areas can have now an access to excellent quality testing system. This test does not need any power supply and can be performed at room temperature against PCR, where the chemicals must be frozen. Genekam magnetic beads ELISA detects the presence of antibodies. It can also indicate whether the person is exposed to coronaviruses infection along with indicating that the active disease is being developing because infected person is going to develop symptoms. The cost Euro 1 per test of Genekam magnetic beads ELISA is lower than ELISA as well as PCR tests. Genekam is trying to develop a new version of this test, where the cost may go down to 30 cents per test against the ELISA 3 Euro and PCR test 8 Euro. Genekam Biotechnology AG is a German company focusing on pandemic viruses for last 16 years as it has large number of tests for different pandemic outbreak causing viruses like Influenza, Zika, Ebola, dengue, coronaviruses, Rift valley virus. It is working on developing the therapeutic antibodies and small molecules to cure these viruses one day. It develops and manufactures its products in Germany.