

## **Neuroscience Antibodies and Assays Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)**

Market Report | 2023-01-23 | 110 pages | Mordor Intelligence

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### **Report description:**

The neuroscience antibodies and assays market is expected to register a CAGR of around 10.2% during the forecast period.

#### Key Highlights

COVID-19 had a significant impact on the neuroscience antibodies and assays market in the initial phases since the market faced a decline in growth due to the lockdown, which caused the temporary closing of many laboratory facilities conducting neuroscience assays. For instance, according to an article published in April 2022 by PubMed, researchers faced decreased neuroscience research funding, resource limitations, laboratory and hospital access restrictions, and reductions in available personnel during the pandemic.

The market will likely witness growth in the coming years due to the high prevalence of neurological diseases, research and developments, and technological advances in the neuroscience antibodies and assay market. Moreover, patients infected with COVID-19 have developed long-term neurological complications, which can drive market growth. Future market expansion is anticipated to be driven by the increasing demand for neuroscience assays and antibodies due to the surge in neuroscience advancements following the pandemic.

The high prevalence of neurological diseases is one of the major driving factors for market growth, as these are likely to lead to the increased use of immunoassays to detect neurological diseases accurately. For instance, according to Parkinson's Foundation, as of 2022, nearly one million people in the United States are living with Parkinson's disease (PD). This number is expected to rise to 1.2 million by 2030. Parkinson's is the second-most common neurodegenerative disease after Alzheimer's disease. More than 10 million individuals worldwide also have Parkinson's disease. Hence, the high prevalence of neurological diseases will likely boost the market growth.

Furthermore, growth in the pharmaceutical and biotechnology industries will likely boost market growth over the forecast period. For instance, according to the Indian Economic Survey 2021, the domestic market is expected to triple in the next decade. India's

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domestic pharmaceutical market stood at USD 42 billion in 2021 and is likely to reach USD 65 billion by 2024 and increase to USD 120-130 billion by 2030.

Furthermore, neuroscience research relies heavily on antibodies that help identify and elucidate cellular, molecular, and biochemical reactions, which may lead to a better understanding of various neuroscience processes and neuronal diseases. This could increase the growth of the market over the forecast period.

According to an article published in December 2021 by Oxford Academic, antibody-based treatments are increasingly common in treating neuroinflammatory illnesses. The specificity-conferring antigen-binding fragment (Fab) and the crystallizable fragment (Fc) driving antibody function affect the efficiency of antibody-based therapeutic platforms. Hence, increased research activities relating to neurology antibodies and assays will likely boost market growth over the forecast period.

Hence, due to the rising incidence of neurological diseases and increasing research and development activities, the neuroscience antibodies and assays market is anticipated to witness growth over the forecast period. However, the high cost associated with the production of antibodies restrains the market growth.

## Neuroscience Antibodies & Assays Market Trends

### Immunoassays Segment is Expected to Hold a Significant Market Share in the Neuroscience Antibodies and Assays Market Over the Forecast Year

Immunoassays are chemical tests that measure the presence or concentration of a macromolecule or a small molecule in a solution with an antibody or an antigen. Immunoassays are widely used techniques for diagnosing diseases, therapeutic drug monitoring, and pharmacokinetic and bioequivalence studies in drug discovery and development. Due to the development of novel antibodies, technological advancements in immunoassays, and increasing government initiatives in the field of genomics and proteomics research, the immunoassays segment, which currently accounts for a substantial market share in the neuroscience antibodies and assays market, is anticipated to demonstrate a similar trend during the forecast period.

Moreover, the increasing incidence of neurological diseases, technological developments in immunoassays, and increasing research and development activities are the key driving factors in the immunoassays segment. For instance, according to World Health Organization (WHO) 2022 update, it is estimated that worldwide about one in 100 children has autism. Autism can be predicted with sophisticated immunoassay systems. For instance, as per an article published by Labmedica in February 2021, An AI-guided immunoassay that measures maternal autoantibodies accurately predicts the likelihood that a child will develop an autism spectrum.

Moreover, recent product launches by the key market players are also aiding in the market's growth as these are likely to increase product availability and competition. For instance, in July 2022, Quanterix Corporation, a company focused on exploration with ultrasensitive biomarker detection, publicized the validation of a laboratory-developed test (LDT) to quantitatively measure phospho-Tau 181 (pTau-181) in plasma as an aid in the diagnostic evaluation of Alzheimer's disease. Quanterix' LDT, a pTau-181 plasma test released for clinical use in the United States, is a quantitative immunoassay to measure pTau-181 concentration in human plasma. Such product launches of immunoassay tests to detect neurological diseases are expected to propel the market's growth during the forecast period.

Additionally, Fujirebio Europe NV introduced two new Alzheimer's disease immunoassays based on cerebrospinal fluid (CSF) in November 2021 on its Innostest platform. It's the first product launch for the company following a collaboration agreement signed with Adx Neurosciences NV. The assays will likely test for neuronal pentraxin-2 (NPTX2) and soluble triggering receptors expressed on myeloid cells 2 (STREM2). Synaptic dysfunction and neuroinflammation, which are regarded as key indicators of Alzheimer's disease progression, are connected by both neurology biomarkers. The launched immunoassays are anticipated to supplement ongoing work on the development of AD medications. Hence, the innovative product launches associated with immunoassay in neuroscience are expected to drive market growth over the forecast period.

As a result, due to the high prevalence of neurological illnesses and technological advancements in immunoassays, the

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Immunoassays segment is likely to witness growth in the neuroscience antibodies and assays market during the forecast period.

North America is Expected to Hold a Significant Share in the Market and Expected to do Same Over the Forecast Period

North America is expected to hold a significant market share in the global neuroscience antibodies and assays market due to the rising incidence of neurological diseases, increasing research and development activities, and growth in this region's pharmaceutical and biotechnology industries. For instance, according to the Alzheimer's Society of Canada's 2022 report, 1 million Canadians are expected to have dementia by 2030. The same source predicts that every day in 2022, an average of 350 people in Canada are anticipated to be diagnosed with dementia.

Alzheimer's and dementia can be detected using different neurological tests and assays. For instance, according to an article from Science Daily in October 2022, scientists from Hokkaido University and Toppan developed a method using the immuno-digital invasive cleavage assay (idICA) to find biomarkers in blood samples that signify the accumulation of amyloid beta in the brain, a symptom of Alzheimer's disease. The study revealed that idICA is likely an easy and valuable tool for quantitatively detecting extracellular vesicles as a blood biomarker for preclinical Alzheimer's disease diagnosis. Hence, an increase in Alzheimer's cases will likely boost market growth over the forecast period.

Moreover, an increase in research and development activities and funding associated with neuroscience assay and antibodies is anticipated to boost the market growth over the forecast period. For instance, in July 2022, Miami-based Pasithea Therapeutics received access to AUD 1 million (about USD 1.3 million) to further its research into anti-integrin antibodies as potential treatments for amyotrophic lateral sclerosis (ALS). The non-dilutive funding became available after the company acquired Alpha-5 Integrin, the preclinical biotech company that initially developed the experimental antibodies for ALS.

Additionally, according to an article published on November 2021 by Research Square, brain neoplasms research in Mexico is under development. Adequate funding and support are likely to increase the number of brain tumor researchers in the region, which is expected to impact the market positively. Furthermore, per the July 2022 update from The National Institutes of Health (NIH), diagnostic tests and procedures are vital tools that help physicians confirm or rule out a neurological disorder or other medical condition. Blood tests can provide evidence for infections, toxins, clotting disorders, or antibodies that signal the presence of autoimmune disease in neurologic conditions. Therefore, immunoassays, immunochemistry tests, and other molecular diagnostic tests are found to be useful in understanding the progression and disease development of neurological illnesses, which is predicted to be a growth factor for the market during the forecast period.

Hence, North America is expected to witness growth in the neuroscience antibodies and assays market during the forecast period due to the rise in the number of neurological diseases and the increase in research and development activities and investments associated with neuroscience assays and antibodies.

#### Neuroscience Antibodies & Assays Market Competitor Analysis

The neuroscience antibodies and assays market is moderately competitive and consists of several major players. In terms of market share, few major players are currently dominating the market.

Some of the companies which are currently dominating the market are Thermo Fisher Scientific, Bio-Rad Laboratories, Inc, Merck KGaA, F. Hoffmann-La Roche, Cell Signaling Technology, Inc, BioLegend, Inc, Abcam Plc, Rockland Immunochemicals, Inc, GenScript and Santa Cruz Biotechnology, Inc.

Additional Benefits:

The market estimate (ME) sheet in Excel format

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