

raVO PNS Line Assays
PNS9 Diver
PNS11 Diver
PNS14 Diver
for the
BlueDiver Instruments
BDI and BDI II from D-tek



Paraneoplastic neurological syndromes (PNS) are a group of neurological disorders associated with a tumor and its metastasis that are not the cause of the syndromes. An autoimmune process is considered as the underlying pathophysiological mechanism. Specific neuronal autoantibodies can be detected in a majority of patients with PNS (see table).

According to the current diagnostic criteria (Graus et al. Updated Diagnostic Criteria for Paraneoplastic Neurological Syndromes. *Neurol Neuroimmunol Neuroinflamm*, Vol 8, July 2021) neuronal autoantibodies are divided into 3 groups according to the frequency of cancer associated:

Group 1: High-risk antibodies which are associated > 70% with cancer

Group 2: Intermediate-risk antibodies which are associated between 30% and 70% with cancer

Group 3: Lower-risk antibodies which are associated < 30% with cancer

The PNS DIVER Assays detect the following antineuronal antibodies (see table)

High-risk antibodies:

- Anti HuD (ANNA-1), Yo (PCA-1), Ri (ANNA-2), CV2/CRMP5, Amphiphysin, Ma 1 und Ma2 (TA), SOX1, Tr (DNER)

Low-risk antibodies:

- GAD65

Additionally antibodies to Zic4, PKCy, Recoverin and Titin are detected.

Manual PNS Line Assays are also available.

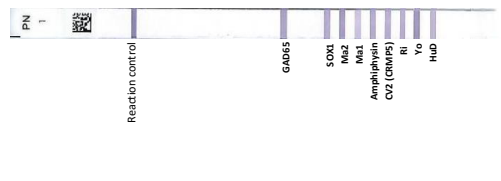
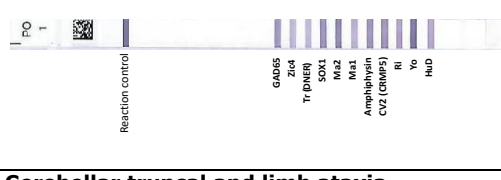
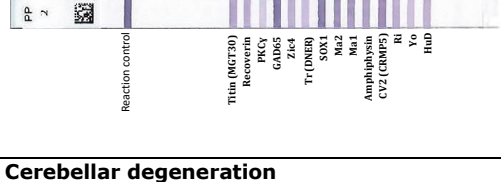
Advantages of the *BDI II* PNS DIVER Assays:

- Detection of 9, 11 or 14 important neuronal autoantibodies on one strip using one serum dilution
- Automatic sample pipetting (**BDI II** only)
- Serum sample dilution 1:140
- Testing of cerebrospinal fluid
- Fully automated test performance
- No cross contamination between samples
- Barcode identification of strips and cartridges
- A drying module is included in the **BDI II**. Strips are dried within 6 minutes in an airflow
- Automatic reading of results
- Full traceability, from sample barcode identification to final result interpretation

Table:

Paraneoplastic neurological syndromes

Most frequently associated tumors

	Paraneoplastic neurological syndromes	Most frequently associated tumors
PNS9 DIVER		
Anti-Hu-Antibodies (ANNA-1)	Sensory and autonomic neuropathy Cerebellar ataxia Encephalomyelitis Limbic Encephalitis	Small-cell-lung cancer Non-small-cell lung cancer Extrapulmonary small cell cancer
Anti-Yo-Antibodies (Purkinje-cell-antigen)	Cerebellar ataxia	Breast cancer Ovarian cancer Uterus cancer
Anti-Ri-Antibodies (ANNA-2, anti-Nova-1)	Brainstem encephalitis (incl. Opsoclonus-Myoclonus-Syndrome) Cerebellar ataxia	Breast cancer Small-cell-lung cancer Medullary carcinoma of the thyroid gland
Anti-CV2-(CRMP5-)Antibodies	Sensory and sensorimotor neuropathy Encephalomyelitis Cerebellar ataxia Limbic Encephalitis Autonomic neuropathy Chorea	Small-cell-lung cancer Thymom
Anti-Amphiphysin-Antibodies	Stiff-person-syndrom Various symptoms	Breast cancer Small-cell-lung cancer
Anti-Ma1 and Anti-Ma2- (Ta-) Antibodies	Limbic Encephalitis Brainstem encephalitis Cerebellar ataxia	Testicular cancer Lung-cancers
Anti-SOX1-Antibodies	Lambert Eaton Myasthenia gravis	Small-cell-lung cancer
Anti-GAD65-Antibodies	Stiff-Person-Syndrom Limbic Encephalitis	Non paraneoplastic
PNS11 DIVER		
PLUS { Anti-Tr (DNER)-Antibodies	Cerebellar truncal and limb ataxia	Hodgkin Lymphoma
Anti-Zic4-Antibodies	Cerebellar degeneration	Small-cell-lung cancer
PNS14 DIVER		
PLUS { Anti-PKCγ-Antibodies	Cerebellar degeneration	Small-cell-lung cancer Adenocarcinoma
Anti-Recoverin-Antibodies	Cancer-associated Retinopathy (CAR)	Small-cell-lung cancer
Anti-Titin (MGT30)-Antibodies	Myasthenia gravis	Thymoma

Order Form

Yes, I am interested in PNS Line Assays

Please send more information.

Please complete and return by

FAX to ravo Diagnostika: +49 – (0)761 – 40 74 77

or

by email to info@ravo.de

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