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Neuroimmunology: BÜHLMANN neural antibody ELISAs in the Literature – 60 References: most cited neural antibody assays

BÜHLMANN GanglioCombi® ELISAs

- **Delmont E** et al., **2017:** Value of anti-HNK-1 Antibodies in anti-MAG Neuropathies: an analysis of 144 sera
  Poster presented at 2017 PNS Annual Meeting in Sitges (ES)

  "Anti-MAG Antibodies have good sensitivity and specificity to detect anti-MAG Neuropathy. Notably, titres of anti-HNK-1 antibodies are related to the disease activity"

- **Sohn SY** and **Kim J K, 2018:** Neutropenia Following Intravenous Immunoglobulin Administration in a Patiient with Multifocal Motor Neuropathy with Conduction Block. J Neurol Neurophysiol **8**:409. doi:10.4172/2155-9562.1000409

- **Legast GM et al., 2017:** Guillain-Barré and Miller Fisher Overlap Syndrome Mimicking Alimentary Botulism. J Clin Neurol **13(4):** 442-443

- **Chalah M A** et al., **2016:** A comparison of four commercial tests for detecting anti-ganglioside antibodies in patients with well-characterized dysimmune peripheral neuropathies.
  Poster presented at "International Congress on Autoimmunity, Leipzig (GE).

  "BÜHLMANN GanglioCombi ELISA compared to competitor Assays has best performance and qualifies for Assay of choice for daily clinical routine application."

- **Cao-Lormeau V M** et al., **2016:** Guillain-Barré Syndrome outbreak associated with Zika virus infection in French Polynesia: a case-control study. Lancet 387(10027); 1531-1539 (incl. supplement)**.**

  "BÜHLMANN GanglioCombi at the forefront of newly emerging post-infectious forms of Guillain-Barré syndromes such as those associated with Zika viruses.

- **Kollewe K** et al., **2015:** Anti-Ganglioside Antibodies in Amyotrophic Lateral Sclerosis Revisited. PLoS One, **10**(4): e0125339.

  "BÜHLMANN GanglioCombi at the utmost importance of daily questions such as the differentiation between Multifocal Motor Neuropathies (MMN, treatable) and MMN- mimicking disorders such as Amyotrophic Lateral Sclerosis (ALS, not treatable).
  This is the biggest ALS cohort investigated to date and demonstrates that frequency of anti-Ganglioside antibodies is not different from apparently healthy normal blood donors."

further literature citing BÜHLMANN GanglioCombi® ELISA/anti-GM1 Autoantibodies ELISA

- **Herrendorff R** et al., **2017**: Selective *in vivo* removal of pathogenic anti-MAG autoantibodies, an antigen specific treatment option for anti-MAG neuropathy. PNAS, www.pnas.org/cgi/doi/10.1073/pnas.1619386114

- **Anaya J-M** et al., **2017**: A comprehensive analysis and immunobiology of autoimmune neurological syndromes during the Zika virus outbreak in Cúcuta, Colombia. Journal of Autoimmunity **77**: 123-138

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- **Spatola M** et al., **2016**: Serum and CSF GQ1b antibodies in isolated ophthalmologic syndromes. Neurology **86**:1780-1784

- **Han T A** et al., **2016**: Transient Isolated Lower Bulbar Palsy with Elevated Serum Anti-GM1 and Anti-GD1b Antibodies During Aripiprazole Treatment. Pediatr Neurol **66**; 96-99.

- **Kenina V** et al., **2015**: Clinical Impact and Relevance of Antiganglioside Antibodies Test Results. Proc. Latvian Acad. Sci., Section B, 69(5): 223-227

- **Uysalol M**. et al., **2013:** A Rare Form of Guillain-Barré Syndrome: A Child Diagnosed with Anti-GD1a and Anti-GD1b Positive Pharyngeal-Cervical-Brachial Variant. Balkan Med J; **30**:337-341

- **Lei T** et al., **2012**: Anti-ganglioside antibodies were not detected in human subjects infected with or vaccinated against 2009 pandemic influenza A (H1N1) virus. Vaccine **30**: 2605-2610

- **Sharma M B** et al., **2011:** The presence of Mycoplasma pneumoniae infection and GM1 ganglioside antibodies in Guillain-Barré syndrome. I Infect Dev Countries **5**(6): 459-464

- **Mani B** et al., **2010**: The Frequency of anti-Ganglioside Antibodies in Blood Donors Compared to Control Groups and Guillain-Barré Syndrome Patients. Poster presented at DAS, Dresden (GE).

- **Wurster U** et al., **2009**: Ganglioside Antibodies in Amyotrophic Lateral Sclerosis. Poster presented at DAS, Dresden (GE).

BÜHLMANN anti-MAG Autoantibodies ELISA

- **Nobile-Orazio E** et al**., 2017**: Comparing treatment options for chronic inflammatory neuropathies and chossing the right treatment plan. 17(8): 755-765.

- **Svahn J** et al., **2018:** Anti-MAG antibodies in 202 patients: clinicopathological and therapeutic features. J Neurol Neurosurg Psychiatry **89:** 499-505.

  "Patients with anti-MAG Neuropathy can be grouped were grouped categories into different categories. Basis is the titre of anti-MAG autoantibodies which can be determined by Autoantibody ELISA by BÜHLMANN. Clinical response to rituximab during 6-month and/or 7–12-month follow-up period was observed in 31.5% of patients and correlated with anti-MAG autoantibody titre of ≥ 10 000 BTU.

- **Magy L** et al., **2015**: Heterogeneity of Polyneuropathy Associated with Anti-MAG Antibodies. J Immunol Res 2015; Article ID 450391.

  "BÜHLMANN anti-MAG ELISA is described as a reliable quantitative tool to differentiate anti-MAG neuropathy into typical anti-MAG neuropathy and high titres of anti-MAG antibodies and CIDP-like neuropathy, negative Immune fluorescence (IF) results and low BTU titres."

- **Stork A C J** et al., **2014**: Prevalence, specificity and functionality of anti-ganglioside antibodies in neuropathy associated with IgM monoclonal gammopathy. J Neuroimmunol **268**(1-2): 89-94.

  "Increase of sensitivity and determination by co-measurement of anti-MAG with -ganglioside antibodies, in patients with demyelinating neuropathies and IgM monoclonal antibodies (IgM-PNP).

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- **Willison H J** et al., **2011**: Use of antibody testing in nervous system disorders. European Handbook of Neurological Management: volume 1, 2nd edition; chapter **6**: 75-80.

  "The article evaluates service provision and quality assurance schemes for clinically useful autoantibody test in neurology. ELISA is a widely used technique for the determination of anti-glycolipid antibodies and anti-MAG autoantibody ELISA "has good standardisation."

- **Kuijf M** et al., **2009**: Detection of anti-MAG antibodies in polyneuropathy associated with IgM monoclonal gammopathy. Neurology **73**(9) 688-695.

  "Excellent differentiation between healthy subjects and patients with a demyelinating neuropathy with immunoglobulin M (IgM) monoclonal gammopathy (IgM-PNP) with an area under the curve of 0.84"

- **Renaud S** et al., **2003**: Rituximab in the treatment of polyneuropathy associated with anti-MAG antibodies. Muscle Nerve **27**(5): 611-615.

  "Monitoring Rituximab treatment is an important tool for patient management. During successful treatment, the measurement of anti-MAG autoantibodies by the BÜHLMANN assay shows significant decrease allowing follow-up of patients in therapy."

further literature citing anti-MAG Autoantibodies ELISA by BÜHLMANN

- **Herrendorff R** et al., **2017**: Selective in vivo removal of pathogenic anti-MAG autoantibodies, an antigen specific treatment option for anti-MAG neuropathy. PNAS, www.pnas.org/cgi/doi/10.1073/pnas.1619386114

- **Baron M** et al., **2017**: Plasma exchanges for acute neurological deterioration in patients with IgM anti-myelin-associated glycoprotein (anti-MAG) neuropathy. Journal of Neurology , **264**(6): 1132-1135

- **Doneddu P E** et al., **2017**: Deterioration of tremor after treatment with rituximab in anti-MAG neuropathy (Letter to the Editor) Journal of the Neurological Sciences **373**: 344-345

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- **Stork A C J** et al., **2016**: Classical and lectin complement pathway activity in polyneuropathy associated with IgM monoclonal gammopathy. J Neuroimmunol **290**: 76-79

- **Ferfoglia R I** et al., **2016**: Long-term efficacy of rituximab in IgM anti-myelin-associated glycoprotein neuropathy: RIMAG follow-up study. J Peripher Nerv Syst **21**(1): 10-14

- **Campagnolo M** et al., **2015**: Polyneuropathy with anti-sulfatide and anti-MAG antibodies: clinical, neurophysiological, pathological features and response to treatment. J Neuroimmunol **281**: 1-4

- **Stork A C J** et al., **2014**: Clinical phenotype of patients with neuropathy associated with monoclonal gammopathy: a comparative study and a review of the literature. J Neurol **261**(7): 1389-1404

- **Sala E** et al., **2014**: Acute neurological worsening after Rituximab treatment in patients with anti-MAG neuropathy. J Neurol Sci **345**(1-2):224-227

- **Bridel C** et al., **2014**: Multifocal motor neuropathy with high titers of anti-MAG antibodies. J Peripher Nerv Syst **19**(2): 180-182

- **Hospital M A** et al., **2013**: Immunotherapy-based regimen in anti-MAG neuropathy: results in 45 patients. Haematologica **98**(12): e155-157

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BÜHLMANN anti-SGPG Autoantibodies ELISA

- **Herrendorff R** et al., **2017**: Selective *in vivo* removal of pathogenic anti-MAG autoantibodies, an antigen specific treatment option for anti-MAG neuropathy. PNAS, www.pnas.org/cgi/doi/10.1073/pnas.1619386114

- **Caudie C** et al., **2007**: [Diagnostic value of the anti-IgM SGPG Elisa (BÜHLMANN Laboratories AG) in 147 sera with a monoclonal IgM anti-MAG/SGPG antibody-associated neuropathy]. Ann Biol Clin (Paris) **65**(4): 369-375

> "The anti-SGPG autoantibody ELISA by BÜHLMANN turned out to be a very reliable commercially available test with no technical difficulties and both, excellent sensitivity (0.98), and specificity (0.98) for detecting MAG/SGPG antibody-mediated demyelinating neuropathies. Anti-SGPG antibody titers have practical implications for both, management and follow-up of neuropathies treated with rituximab."

- **Bridel C** et al., **2014**: Multifocal motor neuropathy with high titres of anti-MAG antibodies. J Peripher Nerv Syst **19**(2): 180-182

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