BÜHLMANN Anti-MAG & Anti-Ganglioside Autoantibody ELISAs – over 80 References: most cited Anti-Ganglioside and -MAG Antibody tests

BÜHLMANN GanglioCombi™

- **Toscano G** et al., 2020: Guillain-Barré Syndrome Associated with SARS-CoV-2 (Letter to the editor); NEJM; April 27, 2020

- **Delmont E** et al., 2019: Relevance of anti-HNK-1 Antibodies in the management of anti-MAG neuropathies. J Neurol; published online 14 May, 2019; https://doi.org/10.1007/s00415-019-09367-0

- **Choi K-D** et al., 2019: Characteristics of a single oculomotor nerve palsy associated with anti-GQ1b antibody; J Neurol 266: 476–479


- **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

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

**Posters:**


  “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”


  “BÜHLMANN GanglioCombi(R) ELISA compared to competitor Assays has best performance and qualifies for Assay of choice for daily clinical routine application.”

• **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 “10th Dresden Symposium on Autoantibodies”, Dresden (GE).

• **Wurster U et al., 2009**: Ganglioside Antibodies in Amyotrophic Lateral Sclerosis. Poster presented at “9th Dresden Symposium on Autoantibodies”, Dresden (GE).

**Further literature citing ganglioside Antibody ELISA tests by**


• **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. J Infect Dev Countries 5(6): 459-464
BÜHLMANN anti-MAG Autoantibodies ELISA

- **Boscarino M** et al., 2020: Spinal Cord Impairement in anti-MAG Neuropathy: Evidence from Somatosensory Evoked Potentials. Brain Sci. 10(282); 1-10

- **Colchester N T H** et al., 2020: Chemoimmunotherapy with rituximab, cyclophosphamide and prednisolone in IgM paraproteinaemic neuropathy: evidence of sustained improvement in electrophysiological, serological and functional outcomes. Haematologica 2020 [Epub ahead of print]


- **Matà S** et al., 2019: Anti-MAG IgM: differences in antibody tests and correlation with clinical findings. Neurol Sci 41(2); 365-372


"Patients with anti-MAG Neuropathy can be grouped 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.


- **Briani C** et al., 2018: Obinuzumab, a new anti-CD20 antibody, and Chlorambucil are active and effective in anti-MAG antibody polyneuropathy. Eur J Neurol 26(2): 371-375

- **Falzone YM** et al., 2018: Functioning and quality of life in patients with neuropathy associated with anti-MAG antibodies; J Neurol. 265(12): 2927-2933


- **Campagnolo M** et al., 2017: IgM MGUS and Waldenstrom-associated anti-MAG neuropathies display similar response to rituximab therapy. J Neurol Neurosurg Psychiatry 88(12): 1094-1097


- **Lozeron P** et al., 2016: Is distal motor/or sensory demyelination a distinctive feature of anti-MAG neuropathy? J. Neurol 263: 1761-1770

  "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."


  "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)."

• **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."


  "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."

**Posters:**

• **Castelani F et al., 2019**: Ibrutinib in Neuropathy with anti-Myelin-Associated Glycoprotein (MAG) Antibody. "Peripheral Nerve Society" (PNS) Annual Meeting 2019 in Genova (IT)


• **Herrendorff R et al., 2018**: Novel treatment opportunity for anti-myelin-associated glycoprotein neuropathy. Poster presented at 2018 “Peripheral Nerve Society” (PNS) Annual Meeting in Baltimore, MD (USA)


  "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"

• **Neil J** et al., 2017: Do anti-MAG titers have a good correlation with clinical status in IgM anti-MAG Neuropathy? Poster presented at 2017 “Peripheral Nerve Society” (PNS) Annual Meeting in Sites, (ES)

**further literature citing anti-MAG Autoantibodies ELISA by BÜHLMANN**


• **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

• **Donedu 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

• **Gesquière-Dando A** et al., 2017: Are electrophysiological features related to disability in patients with anti-MAG neuropathy? Clinical Neurophysiology 47: 75-81

• **Gazzola S** et al., 2017: Predictive factors of efficacy of rituximab in patients anti-MAG neuropathy; Journal of the Neurological Sciences 377: 144-148


• **Campagnolo M** et al., 2017: IgM MGUS and Waldenstrom-associated anti-MAG neuropathies display similar response to rituximab therapy. J Neurol Neurosurg Psychiatry 88(12): 1094-1097


• **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


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

• **Piscosquito G et al., 2013**: Coexistence of Charcot-Marie-Tooth disease type 1A and anti-MAG neuropathy. J Peripher Nerv Syst **18**(2): 185-188

• **Stork A C J et al., 2013**: Rapid worsening of IgM anti-MAG demyelinating polyneuropathy during rituximab treatment. J Peripher Nerv Syst **18**(2): 189-192

• **Pihan M et al., 2012**: [Neuropathies associated with monoclonal IgM anti-MAG antibodies]. Rev Med Interne; **33**(12): 686-692

• **Maurer M A et al., 2012**: Rituximab induces sustained reduction of pathogenic B cells in patients with peripheral nervous system autoimmunity. J Clin Invest **122**(4):1393-1402

• **Mostafa G A et al., 2012**: Reduced serum concentrations of 25-hydroxy vitamin D in children with autism: relation to autoimmunity. J Neuroinflammation **17**(9): 201


• **Matà S et al., 2011**: Anti-myelin associated glycoprotein antibodies recognize HNK-1 epitope on CNS. J Neuroimmunol **236**(1-2): 99-105

• **Larue S et al., 2011**: Non-anti-MAG DADS neuropathy as a variant of CIDP: clinical, electrophysiological, laboratory features and response to treatment in 10 cases. Eur J Neurol **18**(6): 899-905

• **Matà S et al., 2011**: IgM monoclonal gammopathy-associated neuropathies with different IgM specificity. Eur J Neurol **18**(8): 1067-1073

• **Jurici S et al., 2011**: An Autopsy Case of Amyotrophic Lateral Sclerosis with Waldenstrom Macroglobulinemia and Anti-MAG Gammopathy. Case Rep Neurol **3**(3): 294-400


• **Théaudin M et al., 2011**: Short and long-term effect of IVIg in demyelinating neuropathy associated with MGUS, experience of a monocentric study, Rev Neurol (Paris) **167**(12): 897-904

• **Delmont E et al., 2011**: Treatment with rituximab in patients with polyneuropathy with anti-MAG antibodies. J Neurol **258**(9): 1717-1719


• **Steck A et al., 2006**: Anti-myelin-associated glycoprotein neuropathy. Curr Opin Neurol; **19**(5): 458-463

Caudie C et al., 2006: [Diagnostic value of autoantibodies to MAG by ELISA Bühlmann in 117 immune-mediated peripheral neuropathies associated with monoclonal IgM to SGPG/SGLPG]. Ann Biol Clin 64(4): 353-359

• Kvarnström M et al., 2002: Myelin protein P0-specific IgM producing monoclonal B cell lines were established from polyneuropathy patients with monoclonal gammopathy of undetermined significance (MGUS). Clin Exp Immunol 127(2): 255-262

BÜHLMANN anti-SGPG Autoantibodies ELISA


• 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.”


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