

PRODUCT DATA SHEET

Anti-ganglioside GD_{1b} (polyclonal antibody)

Catalog number: 1964

Common Name: Polyclonal antibody to GD_{1b};
isotype IgG/IgM; Anti-GD_{1b}

Host: Rabbit

Preparation: Purified anti-ganglioside GD_{1b}
and complete Freund's adjuvant
was used to immunize rabbits.
Serum containing IgG/IgM was
isolated¹

Limit of Detection: Optimal ELISA ca. 20ng of
antigen

Quality Control: ELISA and TLC
immunoblotting with peroxidase reaction²

Selectivity: Intensely reacts with GD_{1b} and
GM₁, and sparsely with GM₂. The
degree of the reaction is noted as
GD_{1b} > GM₁ > GM₂

Storage: -20°C

Dilution: Phosphate buffered saline (pH 7.4) is
recommended

Preservatives: None

Application Notes:

Anti-ganglioside GD_{1b} (anti-GD_{1b}) is very useful in the identification of disialoganglioside GD_{1b} and in immunotargeting cells expressing disialoganglioside GD_{1b}. Several gangliosides have been found to have elevated expressions in tumor cells. Many therapeutic treatments of tumor cells are being investigated using antibodies to target cells that express these elevated levels of gangliosides. GD_{1b} may be a target molecule for autoantibodies in some patients with acute sensory ataxic neuropathy.³ Anti-GD_{1b} has been found in some patients with Guillain-Barré syndrome (a disorder affecting the peripheral nervous system) and may contribute to the pathogenesis of sensory disturbance and demyelination.⁴

Selected References:

1. H. Yoshino, et al. "Fucosyl-GM1 in Human Sensory Nervous Tissue Is a Target Antigen in Patients with Autoimmune Neuropathies" *Journal of Neurochemistry*, Vol. 61 pp. 658, 1993
2. S. Kusunoki, et al. "Neuropathy and IgM paraproteinemia: Differential binding of IgM M-proteins to peripheral nerve glycolipids" *Neurology*, Vol. 37 pp. 1795, 1987
3. C. Pan et al. "Acute sensory ataxic neuropathy associated with monospecific anti-GD1b IgG antibody" *Neurology*, vol. 57(7) pp. 1316-1318, 2001
4. F. Notturmo MD, C. Caporale MD, A. Uncini MD "Acute sensory ataxic neuropathy with antibodies to GD1b and GQ1b gangliosides and prompt recovery" *Muscle & Nerve*, Vol. 37(2) pg. 265-268, 2008

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