

PRODUCT DATA SHEET

Anti-globoside GL-4

Catalog No: 1960

Common Name: Polyclonal antibody to GL-4, isotype IgG/IgM

Host: Rabbit

Preparation: Purified globoside and complete Freund's adjuvant was used to immunize rabbits. Mixture of IgG/IgM¹

Limit of Detection: Optimal ELISA ca. 50ng of antigen

Quality Control: ELISA and TLC immunoblotting with peroxidase reaction²

Selectivity: No cross-reaction with other carbohydrate epitopes

Storage: -20°C

Stability: 3-4 months when refrigerated; 2-3 days at room temperature

Dilution: Phosphate buffered saline (pH 7.4) is recommended

Preservatives: None

Application notes:

Anti-globosides are very useful in the identification of globosides and immunotargeting cells that express globosides. Globoside is the P-antigen of the P blood group. An inability to convert globotriaosylceramide to globotetrahexylceramide leads to the Pk blood group phenotype. In this phenotype anti-globoside antibodies are produced.³ There have been indications that the antibodies directed against the globoside antigen on suppressor T cells stimulate the suppressor T cells, and that anti-globoside antibodies in cancer sera may play a role in causing immunodeficiency in cancer patients.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. Å. Hellberg, J. Poole, and M. Olsson "Molecular Basis of the Globoside-deficient P^k Blood Group Phenotype: Identification of Four Inactivating Mutations in the UDP-N-Acetylgalactosamine: Globotriaosylceramide 3-*beta*-N-Acetylgalactosaminyltransferase Gene" *The Journal of Biological Chemistry*, Vol. 277 pp. 29455, 2002
4. R. Noguchi, M.D., N. Shinomiya, M.D., K. Nagai, Ph.D. and J. Yata, M.D. "Induction of Suppressor T Cells by Anti-Globoside Antibodies in Cancer Sera" *Japanese Journal of Clinical Oncology* Vol. 13 pp. 335-342, 1983

This product is to be used for research only. It is not intended for drug or diagnostic use, human consumption or to be used in food or food additives. Matreya assumes no liability for any use of this product by the end user. We believe the information, offered in good faith, is accurate.