

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/IgM ¹
Limit of Detection:	Optimal ELISA ca. 50ng of antigen
Quality Control:	ELISA and TLC immunoblotting with peroxidase reaction ²
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

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