

For NK cell depletion

Anti asialo GM1 (Rabbit)

The glycolipid asialo ganglioside-GM1 (ASGM1) is expressed by T cells in viral infection and by natural killer (NK) cells. ASGM1 is localized in lipid raft structures in NK and CD8(+) T cells. Anti asialo GM1 antibody reduces natural killer (NK) activity in cells of various strains of mice and rats.

To investigate the function of NK cells, or transplant tumor tissue derived from the other species to mice, Anti asialo GM1 antibody is injected to remove NK cells¹⁾²⁾.

Recently, it is reported that ASGM1 is also expressed by Basophils, and Anti asialo GM1 antibody is able to remove Basophils too³⁾.

Features

- Tested the anti NK cells activity *in vivo*
- Used in many papers

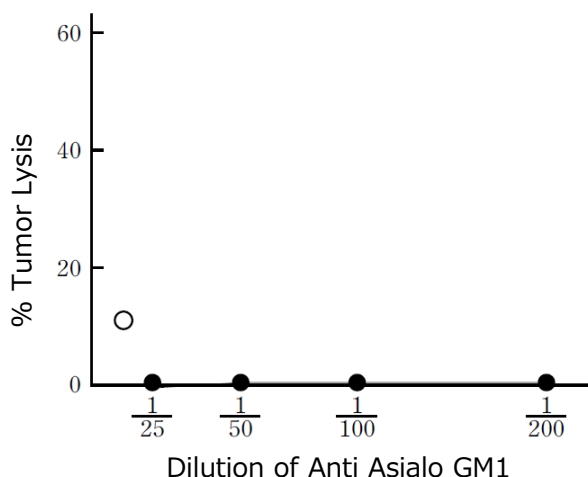
Contents	Rabbit anti asialo GM1, lyophilized
Preparation	Purified asialo GM1 from bovine brain tissue was repeatedly immunized with methylated bovine serum albumin and with complete Freund's adjuvant.
Purification	Gammaglobulin fraction of serum was obtained by 50% ammonium sulfate precipitation methods followed by dialyzing with phosphate buffered saline (pH7.2).
Specificity	React with mouse and rat natural killer cells, mouse monocytes and fetal thymocytes.
Reconstitution	Reconstitute with 1 mL of distilled water. For dilution, phosphate buffer (pH7.2) is recommended.
Storage	Aliquotting into one by one is recommended. Store at freezer. Avoid freeze thaw cycles.
Injection	Inject to mouse 10-50µL intravenously.

Product Name	Wako Cat. No	Pkg. Size	Grade	Storage Condition
Anti asialo GM1 (Rabbit)	986-10001	1mL	For Immunochemistry	Keep at 2-10°C

References

- 1) Kasai M., Iwamori M., Nagai Y., Okumura K., and Tada T. : *J. Immunol.*, **10**, 175 (1980).
- 2) Habu S., Fukui H., Shimamura M., Kasai M., Nagai Y., Okumura K., and Tamaoki N. : *J. Immunol.*, **127**, 34 (1981).
- 3) Hideto, N., Kaori, M., Yohei, K., Yoshiyuki, M., and Hajime K., : *J. Immunol.*, **186**, 10, 5766(2011).

Titration of Anti asialo GM1 *in vitro*



Spleen cells of BALB/c* were treated with Anti Asialo GM1 plus guinea pig complement. Remaining NK activities were tested *in vitro* by using YAC-1 cells as target (●).

Effector/target ratio was 50:1. ○ represents NK activities of BALB/c spleen cells treated with complement.

*BALB/c was injected with 100 µg of polyinosinic-polycytidylic acid sodium salt (0.2mL of 500µg/mL Poly I:C) and maintained for 18 hours before next procedure.

Titration of Anti asialo GM1 *in vivo*

Amount of i.p. injected Anti asialo GM1 into BALB/c* mice	% Lysis against YAC-1 cells by spleen cells taken 3 days after a 1-shot injection (Effector/target 50:1)
10µL	7.0
25µL	8.4
50µL	2.0
100µL	0.0
<u>Normal Rabbit Serum</u>	
100µL	70.8

*BALB/c was injected with 100 µg of polyinosinic-polycytidylic acid sodium salt (0.2mL of 500µg/mL Poly I:C) and maintained for 18 hours before next procedure.

Publication list

Our Anti asialo GM1 used in many papers including the followings:

- Hudson, W. A., Li, Q., Le, C., and Kersey, J. H., : *Leukemia*, **12**, 2029 (1998).
- Murphy W. J., Durum S. K., Longo D. L., : *PNAS*, **89**, 10, 4481 (1992).
- Bentzmann S., Roger P., Dupuit F., Bajolet-Laudinat O., Fuchey C., Plotkowski C. M., Puchelle E. : *Infection and immunity*, **64**, 5, 1582 (1996).
- Nishikado H., Mukai K., Kawano Y., Minegishi Y., Karasuyama H. : *J. Immunol.*, **186**, 10, 5766(2011).
- Victorino, F., Sojka, K. D., Brodsky, S. K. McNamee, N. E., Masterson, C. J., Homann, D., Yokoyama, M. W., Eltzschig, K. H., Clambey, T. E., : *J. Immunol.*, **195**, 10, 4973(2015).

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