

# PRODUCT INFORMATION



## Ganglioside G<sub>M1</sub> Asialo Polyclonal Antibody Item No. 28638

### Overview and Properties

<b>Contents:</b>	This vial contains 100 µl of polyclonal antibody to asialo G <sub>M1</sub>
<b>Immunogen:</b>	Purified ganglioside G <sub>M1</sub> asialo and complete Freund's adjuvant
<b>Form:</b>	This vial contains 100 µl of polyclonal antibody to ganglioside G <sub>M1</sub> asialo.
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥2 years
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG/IgM
<b>Applications:</b>	ELISA and TLC immunoblotting; The optimal working concentration/dilution should be determined empirically.

### Description

Ganglioside G<sub>M1</sub> asialo (Item No. 15586) is a component of cellular lipid rafts and can be formed by the cleavage of the sialic acid residue from ganglioside G<sub>M1</sub> (Item No. 19579) by neuraminidase.<sup>1,2</sup> Ganglioside G<sub>M1</sub> asialo is a glycolipid receptor for *P. aeruginosa* flagellin and stimulates defensive responses in host cells, including extracellular ATP release, calcium mobilization, and ERK1/2 phosphorylation when stimulated by flagellin and an anti-ganglioside G<sub>M1</sub> asialo antibody.<sup>3</sup> The percentage of ganglioside G<sub>M1</sub> asialo-positive natural killer (NK) and CD8<sup>+</sup> T cells in the lung is increased in a mouse model of respiratory syncytial virus (RSV) infection compared with healthy animals.<sup>1</sup> Depletion of ganglioside G<sub>M1</sub> asialo-positive NK and T cells reduces IFN-γ levels in the lung, reduces weight loss, and increases lung viral load in RSV-infected mice. Ganglioside G<sub>M1</sub> Asialo Polyclonal Antibody can be used for ELISA and TLC immunoblotting.

### References

1. Moore, M.L., Chi, M.H., Goleniewska, K., *et al.* Differential regulation of GM1 and asialo-GM1 expression by T cells and natural killer (NK) cells in respiratory syncytial virus infection. *Viral Immunol.* **21(3)**, 327-339 (2008).
2. Sabesan, S. and Lemieux, R.U. Synthesis of tri- and tetrasaccharide haptens related to the Asialo forms of the gangliosides G<sub>M2</sub> and G<sub>M1</sub>. *Can. J. Chem.* **62(4)**, 644-654 (1984).
3. McNamara, N., Khong, A., McKemy, D., *et al.* ATP transduces signals from ASGM1, a glycolipid that functions as a bacterial receptor. *Proc. Natl. Acad. Sci. U.S.A.* **98(16)**, 9086-9091 (2001).

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM