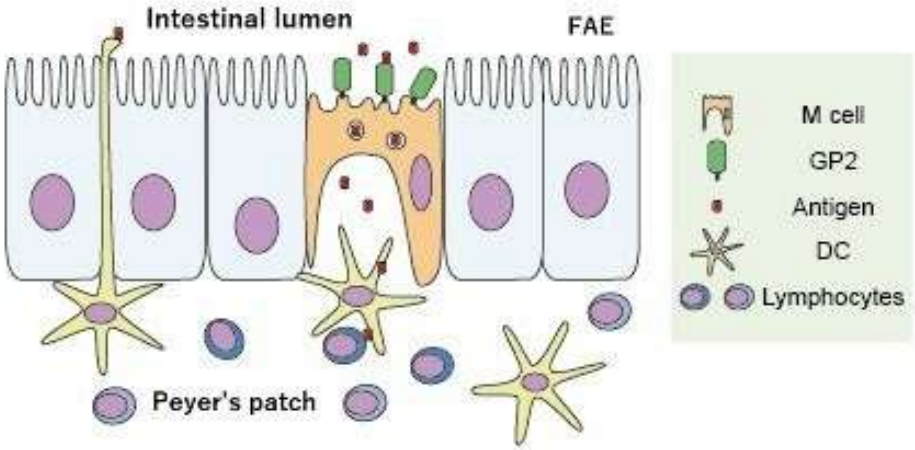
MEDICAL & BIOLOGICAL LABORATORIES CO., LTD.

From M cell marker to functional molecule - explore the evolving role of GP2 -

M cells are specialized epithelial cells that play a central role in mucosal immune surveillance by transporting luminal antigens to underlying immune cells.
Among the molecules expressed on M cells, Glycoprotein 2 (GP2) has been recognized as a reliable M cell marker. However, accumulating evidence has expanded our understanding of its biological function.
GP2 actively mediates antigen uptake by M cells and facilitates the initiation of antigen-specific immune responses within Peyer's patches.

The schematic below illustrates the microenvironment surrounding M cells and the role of GP2 in antigen sampling.



Schematic illustration of the microenvironment surrounding M cells within a Peyer's patch

From Marker to Immune Regulator

Recent studies further suggest that GP2 plays a broader role in mucosal immunity:

- Maintenance of mucosal barrier integrity
- Regulation of immune homeostasis
- Association with inflammatory diseases such as IBD

GP2 is no longer viewed solely as a marker of M cells, but as a functional molecule orchestrating host–microbe interactions and immune responses.

High-Quality Antibodies for GP2 Research

To support advanced research on M cells and mucosal immunity, MBL offers high-

quality, validated monoclonal antibodies against GP2, co-developed with Dr. Hiroshi Ohno (Team Director, RIKEN Center for Integrative Medical Sciences; formerly RCAI), a pioneer in this field.

▶️ **Anti-GP2 (Glycoprotein 2) Antibodies**
Human GP2 mAb (Code No. D277-3)
Mouse GP2 mAb (Code No. D278-3)

In addition to GP2, MBL provides a comprehensive portfolio of antibodies covering a wide range of targets.

Antibody Search

Search and filter MBL antibodies from our complete lineup using multiple parameters, including application, host species, clonality, and reactivity, to quickly find the most suitable reagents for your research.

Contact us!

Stay tuned for more updates and product information in our upcoming newsletters!
Thank you for choosing MBL for your biological research needs.

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