

PRODUCT INFORMATION



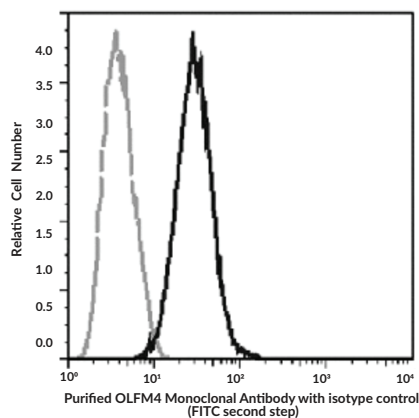
OLFM4 Monoclonal Antibody (Clone 12)

Item No. 38086

Overview and Properties

Contents:	This vial contains 50, 100, or 200 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	hGC-1, Human Granulocyte Colony-stimulating Factor-stimulated Clone 1, Olfactomedin 4
Immunogen:	Recombinant human OLFM4
Cross Reactivity:	(+) OLFM4
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-80°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Clone:	12
Host:	Mouse
Isotype:	IgG1
Applications:	ELISA and Flow cytometry (FC); the recommended starting dilution is 1:1,000-1:2,000 for ELISA and 1:25-1:100 for FC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Flow cytometric analysis of human OLFM4 expression in DU145 cells. Cells were treated according to manufacturer's manual (BD Pharmingen™), and stained with purified OLFM4 Monoclonal Antibody, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.

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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Olfactomedin 4 (OLFM4) is a secreted olfactomedin domain-containing glycoprotein with roles in cell growth and apoptosis, tumor initiation and progression, and innate immunity.¹⁻³ It is composed of an N-terminal coil-coil domain and a C-terminal olfactomedin domain and expressed in the small intestine, colon, prostate, stomach, and bone marrow, as well as macrophages and in neutrophils within specific granules.^{1,4} *Olfm4* knockdown decreases renal cell apoptosis and increases survival in a mouse model of sepsis and increased blood levels of OLFM4 are associated with poor outcomes in patients with sepsis.³ Levels of OLFM4 are increased in intestinal tissue isolated from neonatal patients with necrotizing enterocolitis.¹ OLFM4 levels are decreased in metastatic cervical cancer tissues compared with adjacent non-cancerous tissues isolated from patients with cervical cancer.² Cayman's OLFM4 Monoclonal Antibody can be used for ELISA and flow cytometry (FC) applications.

References

1. Diez, S., Renner, M., Bahlinger, V., *et al.* Increased expression of OLFM4 and lysozyme during necrotizing enterocolitis in neonates: An observational research study. *BMC Pediatr.* **22(1)**, 192 (2022).
2. Li, J., Liu, C., Li, D., *et al.* OLFM4 inhibits epithelial-mesenchymal transition and metastatic potential of cervical cancer cells. *Oncol. Res.* **27(7)**, 763-771 (2019).
3. Stark, J.E., Opoka, A.M., Mallela, J., *et al.* Juvenile OLFM4-null mice are protected from sepsis. *Am. J. Physiol. Renal Physiol.* **318(3)**, F809-F816 (2020).
4. Grover, P.K., Hardingham, J.E., and Cummins, A.G. Stem cell marker olfactomedin 4: Critical appraisal of its characteristics and role in tumorigenesis. *Cancer Metastasis Rev.* **29(4)**, 761-775 (2010).

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