

OLFM4 (D1E4M) XP[®] Rabbit mAb

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IHC-P	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 75-78	Source/Isotype: Rabbit IgG	UniProt ID: #Q6UX06	Entrez-Gene Id: 10562
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Product Usage Information**Application**

Western Blotting
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:100 - 1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #75587.

Specificity/Sensitivity

OLFM4 (D1E4M) XP[®] Rabbit mAb recognizes endogenous levels of total OLFM4 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Phe94 of human OLFM4 protein.

Background

Olfactomedin-4 (OLFM4, hGC-1) is a member of the Olfactomedin family, a small group of extracellular proteins defined by the presence of a conserved "Olfactomedin domain" that is thought to facilitate protein-protein interactions (1). OLFM4 is a secreted glycoprotein, which forms disulfide bond-mediated oligomers, and is thought to mediate cell adhesion through its interactions with extracellular matrix proteins such as lectins (2). Human *OLFM4* was first cloned from myeloid cells (3) and is expressed in a distinct subset of neutrophils, though the functional significance of this differential expression pattern remains unclear (4). Among normal tissues, the expression of OLFM4 protein is most abundant in intestinal crypts (5), where it has garnered attention as a possible marker of intestinal stem cells (6). Notably, OLFM4 expression is markedly increased in several tumor types, including colorectal, gastric, pancreas, lung, and breast (reviewed in [1]). Furthermore, research studies show that the expression levels of OLFM4 vary in relation to the severity and/or differentiation status of multiple tumor types (1, 6-8), leading to the suggestion that OLFM4 may have utility as a prognostic marker in some cancer patients (9).

Background References

1. Yu, L. et al. (2011) *Neoplasia* 58, 9-13.
2. Liu, W. et al. (2006) *Exp Cell Res* 312, 1785-97.
3. Zhang, J. et al. (2002) *Gene* 283, 83-93.
4. Welin, A. et al. (2013) *PLoS One* 8, e69575.
5. van der Flier, L.G. et al. (2009) *Gastroenterology* 137, 15-7.
6. Liu, W. et al. (2007) *Histopathology* 51, 157-65.
7. Liu, W. et al. (2008) *Clin Cancer Res* 14, 1041-9.
8. Besson, D. et al. (2011) *Mol Cell Proteomics* 10, M111.009712.
9. Seko, N. et al. (2010) *Exp Ther Med* 1, 73-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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