

DESCRIPTION

Source Chinese Hamster Ovary cell line, CHO-derived human Olfactomedin-4/OLFM4 protein
Asp21-Gln510, with a C-terminal 6-His tag
Accession # Q6UX06

N-terminal Sequence Analysis Asp21

Predicted Molecular Mass 56 kDa

SPECIFICATIONS

SDS-PAGE 66-75 kDa, under reducing conditions

Activity Measured by the ability of the immobilized protein to support the spreading of NIH3T3 mouse embryonic fibroblast cells
Recombinant Human Olfactomedin-4/OLFM4 His-tag (Catalog # 10261-OL) immobilized at 0.5-1 µg/mL will significantly support cell spreading.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 500 µg/mL in PBS.

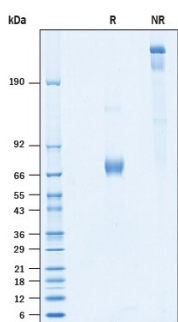
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

SDS-PAGE



2 µg/lane of Recombinant Human Olfactomedin-4/OLFM4 His-tag (Catalog # 10261-OL) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 66-75 kDa on reducing gel.

BACKGROUND

Olfactomedin-4 (OLFM4), previously called GC-1 (G-CSF stimulated clone-1) is an approximately 64-72 kDa secreted glycoprotein that is a member of the Olfactomedin/Noelin family of protein (1-3). It is expressed in epithelial cells of the prostate, small intestine, colon, bone marrow, and in several cancers (4-7), and is up-regulated in epithelial cells during inflammation (8). Mature OLFM4 is a 490 amino acid (aa) protein that is secreted mainly in a polymeric form which is held together by disulfide bonds and carbohydrate interactions (2). Mature human OLFM4 shares 71% aa sequence identity with mature mouse and rat OLFM4. Olfactomedin-4 (OLFM4) interacts with cell surface lectins and cadherins, which helps cell adhesion and cell spreading of NIH3T3 and 293T/17 cells (9). OLFM4 plays a critical role in regulating progression of prostate cancer and is also novel biomarker for triple-negative breast cancer (10-11).

References:

1. Zhang, J. *et al.* (2002) *Gene* **283**:83.
2. Grover, P.K. *et al.* (2010) *Cancer Metastasis Rev.* **29**:761.
3. Guette, C. *et al.* (2015) *Proteomics Clin. Appl.* **9**:58.
4. Zhang, X. *et al.* (2004) *Cancer Res.* **64**:2474.
5. Kobayashi, D. *et al.* (2007) *Cancer Sci.* **98**:334.
6. Koshida, S. *et al.* (2007) *Cancer Sci.* **98**:315.
7. Yu, L. *et al.* (2011) *Int. J. Gynecol. Cancer* **21**:367.
8. Shinozaki, S. *et al.* (2001) *Gut* **48**:623.
9. Liu, W. *et al.* (2006) *Exp. Cell Res.* **312**:1785.
10. Xiong, B. *et al.* (2017) *Biomed. Pharmacother.* **86**:67.
11. Li, H. *et al.* (2015) *Sci. Rep.* **5**:16974.