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### Recombinant Human OLFM4 Protein(His Tag)

#### Catalog Number: PDMH100200

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Human
Source	Mammalian-derived Human OLFM4 protein Met1-Gln510, with an C-terminal His
Calculated MW	55.9 kDa
Observed MW	60-65 kDa
Accession	Q6UX06
Bio-activity	Not validated for activity
Properties	
Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at $< -20$ °C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with 5% Trehalose and 5%
	Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of
	0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human OLFM4 proteins, 2µg/lane of Recombinant Human OLFM4 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 60-65 kDa

#### Background

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Olfactomedin-4, also known as G-CSF-stimulated clone 1 protein, Antiapoptotic protein GW112, and OLFM4, is a secreted protein that contains one olfactomedin-like domain. The OLFM4 gene was recently reported to inhibit various apoptotic pathways and promote the proliferation of cancer cells, suggesting that OLFM4 might serve as a diagnostic marker for human cancers. Thus, OLFM4 mRNA might be a useful tool to support the diagnosis of cancer, irrespective of the clinical stages. It is overexpressed in some human tumor types, especially in those of the digestive system GW112 is associated with GRIM-19, a protein known to be involved in regulating cellular apoptosis. Functionally, GW112 could significantly attenuate the ability of GRIM19 to mediate retinoic acid-IFN-beta-mediated cellular apoptosis and apoptosi s-related gene expression. Also, GW112 demonstrated strong antiapoptotic effects in tumor cells treated with other stress exposures such as hydrogen peroxide. Finally, forced overexpression of GW112 in murine prostate tumor cells led to more rapid tumor formation in a syngeneic host. OLFM4 is an important regulator of cell death that plays important roles in tumor cell survival and tumor growth. As a candidate gene for cancer-specific expression. The serum olfactomedin 4 (OLFM4) is a useful marker for Gastric cancer (GC) and its measurement alone or in combination with Reg IV has utility in the early detection of GC. GW112 has an antiapoptotic property against the cytotoxic agents-induced apoptosis. It suggested that GW112 could be an important mediator in NF kappaB-dependent tumorigenesis of digestive tract tissues.