Recombinant Human OLFM4 Protein (His Tag)

Catalog No. PKSH031049

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

Description		
Synonyms	Olfactomedin-4;OLM4;Antiapoptotic protein GW112;G-CSF-stimulated clone 1 protein;hGC-1;hOLfD;OLFM4;GW112	
Species	Human	
Expression Host	HEK293 Cells	
Sequence	Met 1-Gln 510	
Accession	NP_006409.3	
Calculated Molecular Weight	56.6 kDa	
Tag	C-His	
Bioactivity	Not validated for activity	
Properties		
Purity	> 92 % as determined by reducing SDS-PAGE.	
Endotoxin	< 1.0 EU per μ g 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 sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.	
Reconstitution	Please refer to the printed manual for detailed information.	
Data		

KDa	MK	R
116	-	
66.2	-	-
45.0	-	
35.0	-	
25.0	-	
18.4	_	
14.4	=	

> 92 % as determined by reducing SDS-PAGE.

Background

Olfactomedin-4, also known as G-CSF-stimulated clone 1 protein, Antiapoptotic protein GW112, and OLFM4, is a secreted protein which contains one olfactomedin-like domain. The OLFM4 gene was recently reported to inhibit various

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apoptotic pathways and promote 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 a number of 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 apoptosisrelated gene expression. In addition, 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. 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.