Data Sheet (Cat.No.TMPY-02849)

TargetMol

WIF1 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	AW107799;WIF-1;WNT inhibitory factor 1
Protein Construction:	A DNA sequence encoding the mouse WIF1 (Q9WUA1) (Met1-Trp379) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Gly 29
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q9WUA1
Molecular Weight:	39.8 kDa (predicted); 44 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 93 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM MES, 150 mM Nacl, 10% Glycerol, 0.02% Tween 20, 10% Trehalose, pH 6. 0.Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

WIF1, also known as WIF-1 and wnt inhibitory factor 1, is a secreted protein that binds WNT proteins and inhibits their activities. It contains a WNT inhibitory factor (WIF) domain and 5 epidermal growth factor (EGF)-like domains. WNT proteins are extracellular signaling molecules involved in the control of embryonic development. WIF1 may be involved in mesoderm segmentation and can be detected in fish, amphibia and mammals. WIF-1 is a recurrent

target in human salivary gland oncogenesis. Downregulation of WIF1 takes part in the development and progression of pleomorphic adenomas. WIF1 also is a tumor suppressor, and has been found to be epigenetically silenced in various cancers, specifically in nonfunctioning pituitary tumors. WIF1 are expected to have molecular function (protein tyrosine kinase activity) and to localize in various compartments (extracellular space, extracellular region).

Reference

Shepelev MV,et al. (2006) WIF1: perspectives of application in oncology. Mol Gen Mikrobiol Virusol. (4): 3-7.
Lin YC,et al. (2006) Wnt signaling activation and WIF-1 silencing in nasopharyngeal cancer cell lines. Biochem Biophys Res Commun. 341(2):635-40.
Queimado L,et al. (2007) WIF1, an inhibitor of the Wnt pathway, is rearranged in salivary gland tumors. Genes Chromosomes Cancer. 46(3):215-25.