Data Sheet (Cat.No.TMPY-04004)

TargetMol

Angiopoietin-like 7 Protein, Rhesus, Recombinant (His)

General Information

Synonyms:	angiopoietin-like 7
Protein Construction:	A DNA sequence encoding the rhesus ANGPTL7 (XP_001103825.1) (Met1-Pro344) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Gln 27
Species:	Rhesus
Expression Host:	HEK293 Cells
Accession:	F7HQR6
Molecular Weight:	38.2 kDa (predicted)

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:	> 85 % 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 PBS, pH 7.4. 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:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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

ANGPTL7 is a member of the Angiopoietin-like (ANGPTL) protein family that is composed of eight proteins (1-8). Increasing evidence is associating ANGPTL proteins to obesity and insulin resistance. Obesity increases the level of ANGPTL7 in both plasma and adipose tissue. Increased expression of ANGPTL7 might play a minor role in the regulation of TG level in obese subjects either directly or through interaction with other ANGPTL protein members. Physical exercise reduced the level of ANGPTL7 highlighting the potential for targeting this protein as a therapeutic

target for regulating dyslipidemia. Angptl7 is a factor that promotes pro-inflammatory responses in macrophages through the P38 MAPK signaling pathway and represents a potential therapeutic target for treatment of inflammatory diseases. Expression of ANGPTL7 (angiopoietin-like 7), a protein not previously linked to metastasis, was highly up-regulated in cancer cells after myeloid cell depletion. This effect was duplicated in tissue culture, where coculture of cancer cells with tumor-conditioned myeloid cells from liver metastases or myeloid cell conditioned media down-regulated ANGPTL7 expression. Analogous to myeloid cell depletion, overexpression of ANGPTL7 in cancer cells significantly reduced hepatic metastasis formation and angiogenesis. We found that ANGPTL7 itself has strong antiangiogenic effects in vitro. Furthermore, analysis of The Cancer Genome Atlas colorectal and breast cancer data sets revealed striking ANGPTL7 underexpression in cancerous compared to normal tissues. Also, ANGPTL7 was down-regulated in metastatic liver colonies of colorectal cancer patients compared to their adjacent liver tissue.The secreted growth factor ANGPTL7 as a regulator of both human hematopoietic stem and progenitor cell expansion and regeneration.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481