Data Sheet (Cat.No.TMPY-03118)

TargetMol

ORM2 Protein, Human, Recombinant (His)

General Information

Synonyms:	AGP-B';ORM2;orosomucoid 2;AGP-B;AGP2
Protein Construction:	A DNA sequence encoding the human ORM2 (P19652) (Met1-Ser201) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Gln 19
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P19652
Molecular Weight:	23.1 kDa (predicted); 23 kDa (reducing conditions)

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:	> 90 % 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:

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

ORM2 belongs to the calycin superfamily, lipocalin family. Lipocalins share limited regions of sequence homology and a common tertiary structure architecture. They transport small hydrophobic molecules such as steroids, bilins, retinoids, and lipids. Lipocalins can be found in gram-negative bacteria, vertebrate cells, and invertebrate cells, and plants. They are associated with many biological processes. ORM2 functions as a transport protein in the bloodstream. It is expressed by the liver and secreted in plasma. It seems that ORM2 function in modulating the

activity of the immune system during the acute-phase reaction. It binds various hydrophobic ligands in the interior of its beta-barrel domain. It also binds synthetic drugs and influences their distribution and availability.

Reference

Davila S, et al. (2010) New genetic associations detected in a host response study to hepatitis B vaccine. Genes Immun. 11(3):232-8.

Zhang X, et al. (2011) Asialoglycoprotein receptor interacts with the preS1 domain of hepatitis B virus in vivo and in vitro. Arch Virol. 156(4):637-45.

Guy CS, et al. (2011) Hepatocyte cytotoxicity is facilitated by asialoglycoprotein receptor. Hepatology. 54(3):1043-50.