

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived mouse ASGR2 protein			
	MDP	Mouse IgG _{2A} (Glu98-Lys330)	IEGR	Mouse ASGR2 (Ser79-His301) Accession # P24721.1
	N-terminus			C-terminus
N-terminal Sequence	Met			
Analysis				
Structure / Form	Disulfide-linked homodimer			
Predicted Molecular Mass	53 kDa			

SPECIFICATIONS

SDS-PAGE	62-81 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. Immobilized Recombinant Mouse ASGR2 Fc Chimera (Catalog # 10447-AS) binds Human plasma von Willebrand Factor with an ED ₅₀ of 0.05-0.6 µg/mL.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

<p>Bioactivity</p> <p>Immobilized Recombinant Mouse ASGR2 Fc Chimera (Catalog # 10447-AS) binds human plasma von Willebrand Factor with an ED₅₀ of 0.05-0.6 µg/mL.</p>	<p>SDS-PAGE</p> <p>2 µg/lane of Recombinant Mouse ASGR2 Fc Chimera (Catalog # 10447-AS) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 62-81 kDa and 120-160 kDa, respectively.</p>
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BACKGROUND

Asialoglycoprotein receptor 2 (ASGR2), also known as hepatic lectin 2 (HL-2), is an approximately 38 kDa member of the C-type lectin receptor family (1). ASGR2 is a single-pass type II transmembrane protein that plays a role in the endocytosis of desialylated glycoproteins, hepatic thrombopoietin production, and gastrointestinal malignancies (2, 3). ASGR2 is closely related to ASGR1 which is about 2 kDa smaller and is encoded by distinct but closely linked genes. Variations in ASGR2 structure due to alternative splicing have been reported (4-6). Mature ASGR2 consists of a cytoplasmic domain, transmembrane segment and an extracellular domain (ECD). Within the ECD, mouse ASGR2 shares 67% and 83% aa sequence identity with human and rat ASGR2, respectively. Both ASGR2 and ASGR1 compose the asialoglycoprotein receptor (ASGPR) which mediates removal of potentially hazardous glycoconjugates from blood in health and disease (7). ASGPR, also known as the Ashwell receptor, can modulate von Willebrand factor (vWF) and platelet homeostasis in part via clearance of platelets that are first desialylated during sepsis caused by pathogens including *S. pneumoniae*. The ASGR1 chain of the Ashwell receptor participates in plasma vWF clearance independently of sialylation and sepsis, ASGR2 colocalization with plasma vWF was increased in ASGR1 deficient mice (8). In addition, ASGR2 expression was shown to be associated with malignant phenotypes in gastric cancer and may represent a specific biomarker for recurrence of some gastric cancers (9).

References:

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