Data Sheet (Cat.No.TMPK-00278)

TargetMol

RGMA Protein, Human, Recombinant (His & Avi)

General Information

Synonyms:	RGMA;RGM
Protein Construction:	Cys48-Gly422
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96B86-1
Molecular Weight:	44.5 kDa (predicted). Due to glycosylation, the protein migrates to 45-48 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Human RGMa, His Tag at 5μg/ml (100μl/Well) on the plate. Dose response curve for Human Neogenin, hFc Tag with the EC50 of 0.17μg/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
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, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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

Repulsive guidance molecule (RGM) is a glycosylphosphatidylinositol (GPI)-anchored glycoprotein that has diverse functions in the developing and pathological central nervous system (CNS). The binding of RGM to its receptor neogenin regulates axon guidance, neuronal differentiation, and survival during the development of the CNS. RGMa induces T cell activation in experimental autoimmune encephalomyelitis (EAE), which is the animal model of multiple sclerosis (MS). RGM is expressed in pathogenic Th17 cells and induces neurodegeneration by binding to

neogenin.

Reference

Fujita Y, Yamashita T. The roles of RGMa-neogenin signaling in inflammation and angiogenesis. Inflamm Regen. 2017;37:6. Published 2017 Mar 8. doi:10.1186/s41232-017-0037-6

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