

Mouse PGLYRP1 / PGRP-S Protein (His Tag)



Sino Biological Inc.

Biological Solution Specialist

Catalog Number: 50115-M08H

General Information

Gene Name Synonym:

PGLYRP; PGRP; PGRP-S; PGRPS; TAG7; TNFSF3L; Pglyrp; PGRP; PGRP-S; Tag7; Tasg7; Tnfsf3l

Protein Construction:

A DNA sequence encoding the mouse PGLYRP (O88593) (Met 1-Glu 182) was expressed, with a C-terminal polyhistidine tag

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Phe 19

Molecular Mass:

The secreted recombinant mouse PGLYRP consists of 175 amino acids and has a calculated molecular mass of 20.2 kDa. The recombinant protein migrates as an approximately 18-21 kDa protein in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from PBS, pH 7.4, 10 % glycerol.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

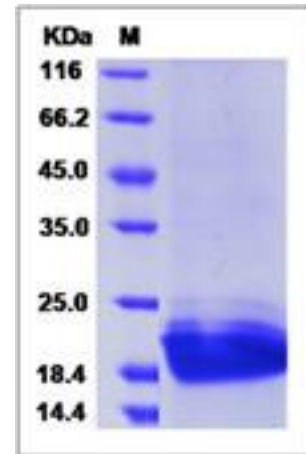
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Mouse Peptidoglycan recognition protein 1, also known as Peptidoglycan recognition protein short, PGRP-S, PGLYRP1, PGLYRP, PGRP and TNFSF3L, is a secreted protein which belongs to the N-acetylmuramoyl-L-alanine amidase 2 family. PGLYRP1 / PGLYRP is highly expressed in bone marrow. It is weakly expressed in kidney, liver, small intestine, spleen, thymus, peripheral leukocyte, lung, fetal spleen and neutrophils. PGLYRP1 / PGLYRP is a pattern receptor that binds to murein peptidoglycans (PGN) of Gram-positive bacteria. It has bactericidal activity towards Gram-positive bacteria. PGLYRP1 / PGLYRP may kill Gram-positive bacteria by interfering with peptidoglycan biosynthesis. It binds also to Gram-negative bacteria, and has bacteriostatic activity towards Gram-negative bacteria.

Peptidoglycan recognition proteins (PGRPs or PGLYRPs) are innate immunity proteins that are conserved from insects to mammals, recognize bacterial peptidoglycan, and function in antibacterial immunity and inflammation. Mammals have four PGRPs: PGLYRP1, PGLYRP2, PGLYRP3, and PGLYRP4. They are secreted proteins expressed in polymorphonuclear leukocytes (PGLYRP1), liver (PGLYRP2), or on body surfaces, mucous membranes, and in secretions (saliva, sweat) (PGLYRP3 and PGLYRP4). All PGRPs recognize bacterial peptidoglycan. The PGRPs likely play a role both in antibacterial defenses and several inflammatory diseases. They modulate local inflammatory responses in tissues (such as arthritic joints) and there is evidence for association of PGRPs with inflammatory diseases, such as psoriasis.

References

- 1.Kang D., *et al.*,(1998), A peptidoglycan recognition protein in innate immunity conserved from insects to humans. Proc. Natl. Acad. Sci. U.S.A. 95:10078-10082.
- 2.Liu C., *et al.*, (2001), Peptidoglycan recognition proteins: a novel family of four human innate immunity pattern recognition molecules.J. Biol. Chem. 276:34686-34694.
- 3.Clark H.F., *et al.*,(2003), The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment.Genome Res. 13:2265-2270.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>