

LYG1 Protein, Human, Recombinant (His)

General Information

Synonyms:	SALW1939;lysozyme G-like 1
Protein Construction:	A DNA sequence encoding the human LYG1 (Met 1-Phe194) (Q8N1E2) was expressed, with a C-terminal polyhistidine tag. Predicted N terminal: Ser 2
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q8N1E2
Molecular Weight:	20.82 kDa (predicted); 22 kDa (reducing condition, due to glycosylation)

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 20 mM Tris, 500 mM NaCl, pH 7.4, 20% gly. 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

LYG1 (Lysozyme G1) is a Protein Coding gene. It belongs to the glycosyl hydrolase 23 family. Glycoside hydrolases are a widespread group of enzymes that hydrolyze the glycosidic bond between two or more carbohydrates, or between a carbohydrate and a non-carbohydrate moiety. LYG1 exhibits hydrolase activity, acting on glycosyl bonds (inferred); lysozyme activity (inferred). It is found in the extracellular region and may function in the cell wall macromolecule catabolic process, metabolic process, and peptidoglycan catabolic process. The lysozyme G

gene structure has been largely conserved during vertebrate evolution, except at the 5' end of the gene, which varies in some exons.

Reference

- Elrwin DM, et al. (2003) Molecular evolution of vertebrate goose-type lysozyme genes. *J Mol Evol.* 56(2):234-42.
- Gerhard DS, et al. (2004) The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). *Genome Res.* 14(10B):2121-7.
- Sklar P, et al. (2011) Large-scale genome-wide association analysis of bipolar disorder identifies a new susceptibility locus near ODZ4. *Nat Genet.* 43(10):977-83.

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