

Serpin B12 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	2300003F07Rik;4833409F13Rik;serpin peptidase inhibitor, clade B (ovalbumin), member 12; Serpin B12
Protein Construction:	A DNA sequence encoding the mouse SERPINB12 (NP_082247.1) (Met 1-Pro 423) was expressed, with a C-terminal polyhistidine tag. Predicted N terminal: Met 1
Species:	Mouse
Expression Host:	Baculovirus Insect Cells
Accession:	Q9D7P9
Molecular Weight:	49.3 kDa (predicted); 58 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:	> 92 % 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 50 mM Tris, 100 mM NaCl, 0.5 mM PMSF, 10% glycerol, 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:

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

Serpins are the largest and most diverse family of serine protease inhibitors which are involved in some fundamental biological processes such as blood coagulation, complement activation, fibrinolysis, angiogenesis, inflammation and tumor suppression and are expressed in a cell-specific manner. Most serpins are secreted and attain physiologic concentrations in the blood and extracellular fluids. Mouse SerpinB12 is a cytoplasm protein

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that belongs to the serpin family and Ov-serpin subfamily. It is expressed in many tissues, including brain, bone marrow, lymph node, heart, lung, liver, pancreas, testis, ovary, and intestine. SerpinB12 inhibits trypsin and plasmin, but not thrombin, coagulation factor Xa, or urokinase-type plasminogen activator.

Reference

- Askew, Y.S. et al., 2001, J Biol Chem. 276 (52):49320-30.
Rawlings, N.D. et al., 2004, Biochem J. 378: 705-16.
Gillard, A. et al., 2006, Am J Nephrol. 26 (1): 34-42.
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