Data Sheet (Cat.No.TMPY-02686)

TargetMol

PON3 Protein, Human, Recombinant (S50N, His)

General Information

Synonyms:	paraoxonase 3
Protein Construction:	A DNA sequence encoding the human PON3 (Q15166-1) (Met 1-Leu 354) (50 Ser/Asn) was expressed, with a polyhistidine tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q15166-1
Molecular Weight:	42 kDa (predicted); 45 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:	> 85 % 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 8.0, 1 mM CaCL2, 10% gly, 0.1% DDM. 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

PON3 was enriched in the mitochondria-associated membrane fraction of hepatocytes. PON3 deficiency resulted in impaired mitochondrial respiration, increased mitochondrial superoxide levels, and increased hepatic expression of inflammatory genes. PON3 deficiency did not influence atherosclerosis development on an apolipoprotein E null hyperlipidemic background, but it did lead to a significant 60% increase in atherosclerotic

lesion size in Pon3KO mice on the C57BL/6J background when fed a cholate-cholesterol diet.

Reference

Draganov DI, et al. (2000) Rabbit serum paraoxonase 3 (PON3) is a high density lipoprotein-associated lactonase and protects low density lipoprotein against oxidation. J Biol Chem. 275(43): 33435-42.
Shih DM, et al. (2007) Decreased obesity and atherosclerosis in human paraoxonase 3 transgenic mice. Circ Res. 100(8): 1200-7.
Rosenblat M, et al. (2003) Mouse macrophage paraoxonase 2 activity is increased whereas cellular paraoxonase 3 activity is decreased under oxidative stress. Arterioscler Thromb Vasc Biol. 23(3): 468-74.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481