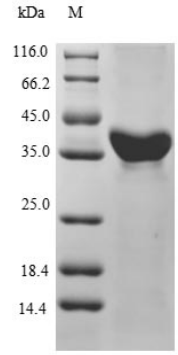
Recombinant Mouse Serum paraoxonase/arylesterase 1 (Pon1)

Product Code	CSB-EP347323MO
Relevance	Hydrolyzes the toxic metabolites of a variety of organophosphorus insecticides. Capable of hydrolyzing a broad spectrum of organophosphate substrates and lactones, and a number of aromatic carboxylic acid esters. Mediates an enzymatic protection of low density lipoproteins against oxidative modification.
Abbreviation	Recombinant Mouse Pon1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P52430
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	AKLLALTLVGLVLALYKNHRSSYQTRLNAFREVTPVELPNCNLVKGIETGAEDL EILPNGLTFFSTGLKYPGIKSFDPSKPGKILLMDLNKKEPAVSELEIIGNTLDISSF NPHGISTFTDEDNTVYLLVVNHPDSSSTVEVFKFQEEERSLLHLKTITHELLPSI NDIAAIGPESFYATNDHYFADPYLRSWEMYLGLSWSNVVYYSPDKVQVVAEG FDFANGIGISLDGKYVYIAELLAHKIHVYEKHANWTLTPLKVLNFDTLVDNISVDP VTGDLWVGCHPNGMRIFFYDAENPPGSEVLRIQNILSEDPKITVVYAENGTVLQ GTTVASVYKGKLLIGTVFHKALYCDL
Research Area	Neuroscience
Source	E.coli
Target Names	Pon1
Protein Names	Aromatic esterase 1
Expression Region	2-355aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag-Free
Mol. Weight	39.4 kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The region for expressing recombinant Mouse Pon1 contains amino acids 2-355. The calculated molecular weight for this Pon1 protein is 39.4 kDa. Expression of this Pon1 protein is conducted in e.coli. The Tag-Free was smoothly integrated into the coding gene of Pon1, which enables a simple process of detecting and purifying the Pon1 recombinant protein in the following steps.

The mouse serum paraoxonase/arylesterase 1 (Pon1) plays a crucial role in detoxification and antioxidation processes. Its primary function involves the hydrolysis and detoxification of organophosphates, commonly found in pesticides, safeguarding the body against their toxic effects. Additionally, Pon1 exhibits arylesterase activity, contributing to the breakdown of various substrates, including lipid peroxides, thereby acting as an antioxidant. The enzyme's association with high-density lipoprotein (HDL) particles suggests its involvement in cardiovascular health, where it may play a protective role against atherosclerosis. Pon1's diverse enzymatic activities make it a subject of interest in research fields ranging from toxicology and environmental health, focusing on its role in detoxification, to cardiovascular research, exploring its potential impact on lipid metabolism and atherosclerotic processes.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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