Recombinant PON2 protein (His tag)

Catalog Number	540330
Synonyms	PON 2; Aromatic esterase 2; A-esterase 2; Serum aryldialkylphosphatase 2
Species	Human
Expression System	E. coli
Accession	Q15165
Molecular Weight	Predictes a molecular mass of 41.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-354
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-354 aa (Q15165) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Serum Paraoxonase/Arylesterase 2 (PON2) Fragment (residues 1-354) is a high-purity protein designed for structural and biochemical studies. This fragment represents a stable and soluble unit of PON2, optimized for research on lactone hydrolysis, antioxidant activity, and lipid peroxidation prevention. Serum paraoxonase/arylesterase 2 (PON2) is a human enzyme with dual catalytic activities (EC 3.1.1.2 and EC 3.1.1.81), capable of hydrolyzing lactones and aromatic carboxylic acid esters. It exhibits significant antioxidant properties and plays a crucial role in preventing LDL lipid peroxidation, reversing oxidation of mildly oxidized LDL, and inhibiting monocyte chemotaxis induced by MM-LDL. Unlike other paraoxonases, PON2 is not associated with high-density lipoprotein and functions as a peripheral membrane protein localized to cellular membranes, underscoring its unique role in cellular protection against oxidative stress.