

Recombinant Human PAI-1 NBD P9 Mutant

Catalog No.	CRP198B	Quantity:	500 µg
	CRP198C		1 mg

Alternate Names: Plasminogen Activator Inhibitor type 1, SERPINE1, PAI, PAI1, PLANH1

Description: Recombinant Human Plasminogen Activator Inhibitor type 1 NBD P9 Mutant was created by mutagenesis of the P9 serine residue (Ser338) on the reactive center loop to cysteine. This then provided a free thiol group for incorporation of N,N'-dimethyl-N-(acetyl)-N'-(7-nitrobenz-2-oxa-1,3-diazol-4-yl) (NBD), a fluorescent probe highly sensitive to changes in solvation and hydrophobic environment. The fluorescence emission of the product is enhanced 6-7 fold upon insertion of the reactive center loop into beta-sheet A following complex formation with proteinases, formation of the latent species, or cleavage by elastase. The incorporated probe is excited at 480 nm and displays a broad emission spectrum with a peak centered 542 nm with a resultant blue-shift to 520 nm following reactive center loop insertion. The modified PAI-1 is nearly as active as wt PAI-1 and is more resistant to the spontaneous latency reaction making this an excellent tool for monitoring reaction rates of PAI-1. P9 NBD labeled PAI-1 has been utilized in a number of studies to determine the rates of loop insertion and SERPIN reaction mechanisms when reacted with various proteinases, inactivating antibodies, and conformational changes imposed by the binding of vitronectin.

Concentration: 2.5 mg/ml

Gene ID: 5054

Protein Accession No: NP_000593

Source: *E. coli*

Molecular Weight: 43.0 kDa

Formulation: Frozen liquid in 0.05 M sodium phosphate + 0.1 M NaCl + 1 mM EDTA, pH 6.6

Storage & Stability: Store in working aliquots at -80°C, protected from light. **Avoid repeated freeze-thaw cycles.**

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