

Product Datasheet



Product: Human PAI-1 (tPA Specific Mutant)
Catalog #: IHPAI-YSY
Lot #: HPAI-YSY
Aliquot: 0.5 mg
Concentration: 1.6 mg/ml
Volume: 0.32 ml
Storage: -70C
Expiration: July 2010

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Protein Characterization

Purity: >98% pure by SDS-PAGE
95 (+/-) 5% active by tPA titration

Considerations

Recombinant protein produced in *E. coli*.
Purified by chromatography.
Molecular Weight: 43,000 Da by SDS-PAGE
Buffer Composition: 0.05 M Sodium Phosphate;
0.1 M NaCl; 1mM EDTA; pH 6.6
Origin: USA

Physical Specifications

Physical Appearance: colorless frozen solution
Solubility: Not greater than 3.5 mg/ml

Spectrophotometric Data

Ultraviolet: Absorbance (280nm) = 1.6 $\epsilon^{0.1\%} = 1.0$
Concentration = 1.6 mg/mL

Applications

A triple mutation on the wild-type background makes this Human PAI-1 selectively inhibit tPA. Urokinase inhibition is limited to 1/25,000 of tPA inhibition by the P3Tyr-P2Ser-P1Tyr mutation.
Sherman et al. (1995) *J. Biol. Chem.* 270: 9301-9306.

Half Life

3 hours at pH 7.4 and 37C.
Lawrence et al. (1987) *Eur. J. Biochem.* 186: 523-533.

Kinetic Data

Second order rate constants for inhibition of:
uPA = $2.5 \times 10^2 \text{ M}^{-1}\text{s}^{-1}$
tPA = $5.7 \times 10^6 \text{ M}^{-1}\text{s}^{-1}$

References

Benedicta et al. (2004) *J. Biol. Chem.* 279: 50132-50141.
Chowers et al. (2004) *Invest. Ophthalmol. Vis. Sci.* 45: 2098-2106.
Minor & Peterson (2002) *J. Biol. Chem.* 277: 10337-10345.
DeYoung et al. (2001) *Circulation* 104: 1972.
Vilhardt et al. (1999) *Mol. Biol. Cell* 10: 179.
Stefansson et al. (1996) *J. Biol. Chem.* 271: 8215.

Document Information

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