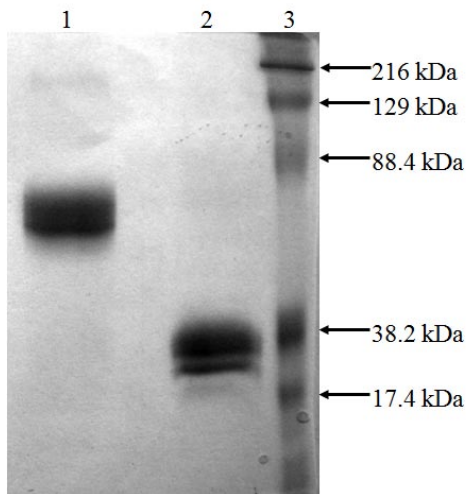


Molecular Innovations, Inc.

46430 Peary Court
Novi, MI 48377
TEL: (248) 896-0142
FAX: (248) 896-0148
Web Site: <http://www.mol-innov.com>

Certificate of Analysis



1 HTPA-TC-811 (3 ug) NR
2 HTPA-TC-811 (3 ug) R
3 Prestained Standard

Product: Human Two-Chain tPA – HTPA-TC

Date: 4 August 2011

Lot: HTPA-TC-811

Molecular Weight: 70,000 by SDS PAGE

Physical Specifications:

Physical Appearance: colorless frozen solution

Solubility: > 2 mg/mL

Spectrophotometric Data:

Ultraviolet: Absorbance (280nm) = 2.09 $\epsilon^{0.1\%} = 1.9$
Concentration = 1.1 mg/mL

Considerations:

Storage Conditions: Store frozen at -70°C – stability > 1yr
Buffer Composition: 0.4 M HEPES; 0.1 M NaCl; pH 7.4
Specific activity: 5,836,804 IU/mg (Relative to WHO International Standard for Human Recombinant Tissue Plasminogen Activator, NIBSC 98/714)
Other: > 98% pure by SDS PAGE.
> 95% two chain
Fully complexable with human PAI-1.

Duane E. Day

Duane E. Day