

Anti-h cTnI RC9707 SPTN-5

Product overview

| | |
|-------------------------|---|
| Catalog number | 140020 |
| Specificity | Antibody recognizes human cardiac troponin I (cTnI) |
| Description | Recombinant chimeric antibody containing variable region from mouse IgG and constant region from human IgG ₁ , cultured <i>in vitro</i> under conditions free from animal-derived components. |
| Product buffer solution | 50 mM Na-citrate, pH 6.0, 0.9 % NaCl, 0.095 % NaN ₃ as a preservative |
| Shelf life and storage | Unspecified, storage at 2–8 °C |
| Subclass | human IgG ₁ |
| Analyte description | Troponins form a complex of three regulatory proteins (troponin C, I and T) that are integral to muscle contraction in skeletal and cardiac muscles. Serum cardiac troponin tests can be used to help diagnose several different heart disorders, especially myocardial infarction. |

Parameters tested on each lot

| | |
|-----------------------|--|
| Product appearance | Liquid, may turn slightly opaque during storage |
| Product concentration | 5.0 mg/ml (+/- 10 %) (A280 nm, 1 mg/ml, 1 cm = 1.5) |
| Immunoreactivity | 80–120 % compared to the reference sample in an FIA test |
| IEF Profile | 7.5–8.7 |
| Purity | ≥ 95 % |

Kinetic parameters

| | |
|----------------------------|--|
| Association rate constant | 1.7×10^6 1/Ms |
| Dissociation rate constant | 2.7×10^{-4} 1/s |
| Affinity constant | $K_A = 6.1 \times 10^9$ 1/M; $K_D = 7.1 \times 10^{-10}$ M (= 0.71 nM) |
| Determination method | BLI analysis (Octet RED96e) |
| Determination antigen | Troponin ITC complex, EastCoast Bio, cat LA200 |



Legal disclaimer

Cross-reactivities Skeletal troponin I (sTnI) 14 %
Does not recognize cardiac troponin T (cTnT), cardiac troponin C (cTnC), or skeletal troponin T (sTnT).

Epitope In the C-terminal part of the cTnI molecule (residues 190-195)

Pair recommendations

| | | DETECTION | | | | |
|---------|-----------------|-----------------|------|------|-----------------|--------|
| | | 9701/ RC9701 | 9703 | 9705 | 9707/ RC9707 | RC9750 |
| CAPTURE | 9701/ RC9701 | - | + | + | + | + |
| | 9703 | - | - | + | - | - |
| | 9705 | + | + | - | + | + |
| | 9707/ RC9707 | - | - | - | - | - |
| | RC9750 | + | - | + | + | - |

RC9750 is recommended as a very sensitive capture.
For increased sensitivity, 2+1 or 2+2 antibody approach is recommended, for example capture: 9701/RC9701 & 9705, detection 9703 & 9707/RC9707.

Please note that pair recommendations are based on results obtained by our laboratory. Equally good results may be obtained using other pairs and therefore these recommendations are only indicative.

Platforms tested FIA

Antigens tested Recombinant cTnI antigen, Medix Biochemica 610102, native cTnI antigen, Medix Biochemica 550-11, native cardiac Troponin Complex (cTn ITC) antigen, Medix Biochemica 550-10.

| Product stability | TEMPERATURE, TIME | RESULT |
|-------------------|-------------------|--------|
| | -70 °C, 21 days | OK |
| | -20 °C, 21 days | OK |
| | +4 °C, 21 days | OK |
| | +35 °C, 21 days | OK |
| | +45 °C, 7 days | OK |

Stability testing is performed in the product buffer to see whether different temperatures affect the antigen binding, charge, or composition of the antibody. Please note that the shelf life given on the first page is based on real time stability testing at 2–8 °C in the product buffer.

Miscellaneous -

References -

