

# Multichem<sup>®</sup> hsTn

Third-party quality control material targeting critical medical decision levels for high sensitivity troponin assays.



**TECHNOPATH**  
CLINICAL DIAGNOSTICS

## Clinical background in the diagnostic laboratory setting

Patients with suspected acute coronary syndrome are typically admitted to hospital for serial cardiac Troponin testing to rule out myocardial infarction. Current assays for both Troponin I (TnI) and Troponin T (TnT) use clinical cut offs that are well established. A test result with at least one value above the 99<sup>th</sup> percentile upper reference limit (URL) for troponin testing may indicate myocardial infarction. Recent studies also suggest that patients with undetectable TnI concentrations are at low risk of myocardial infarction. The optimal approach and threshold of cardiac troponin to identify low-risk patients who would be suitable for immediate discharge from hospital has been established using a high-sensitivity cardiac TnI assay<sup>1</sup>. In addition, studies employing sensitive troponin assays, capable of measuring troponin levels in the general population or in patients with stable cardiovascular disease, have shown that elevated troponin levels are associated with structural heart disease, risk of future cardiovascular events and mortality<sup>2</sup>.

### Third-party QC optimised for the new high sensitivity assays

Independent quality control of Troponin assays at the new low concentrations is critical to ensure a proper assessment is made before releasing patient test results.

# Discover why so many laboratories have converted to Technopath Multichem<sup>®</sup> hsTn



#### Features

- Third-party, human serum based QC
- Includes both Troponin I and Troponin T
- Conveniently provided in a frozen liquid format (3mL fill volume)
- Targeted at critical medical decision levels for high sensitivity troponin assays

#### Specifications

- 36 month closed vial stability at -20°C to -80°C.
- 10 day open vial stability at 2°C to 8°C.

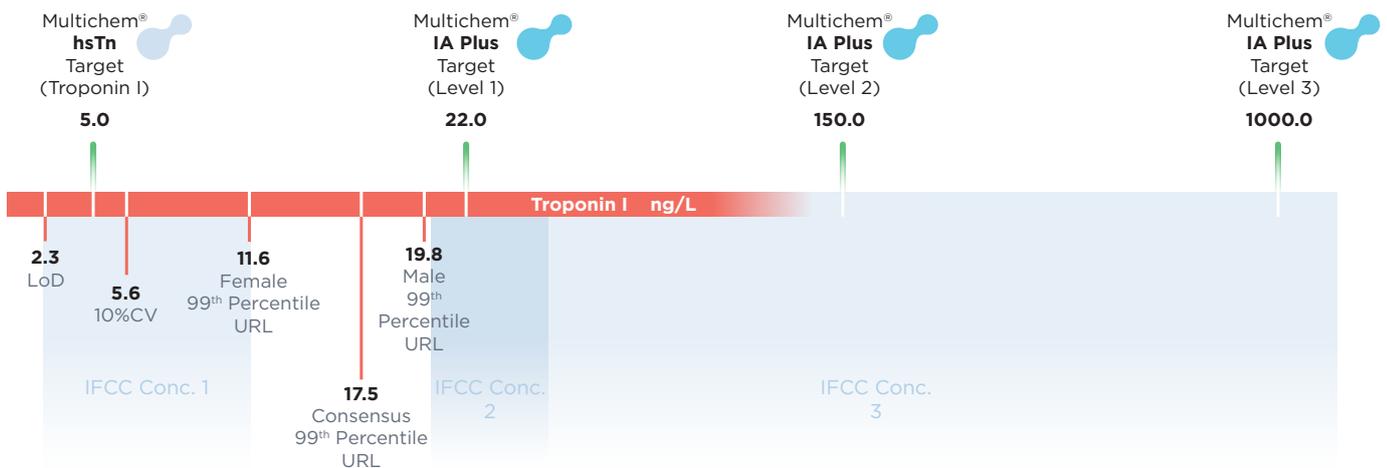
## International Guidelines for Troponin QC in the clinical setting

The IFCC (International Federation of Clinical Chemistry) have communicated a recommendation for the optimal concentrations of Quality Control materials for laboratories that are running high sensitivity troponin assays<sup>3</sup>:

1. A concentration between the limit of detection (LoD) and the lowest sex-specific 99<sup>th</sup> percentile URL.
2. A concentration that is higher than, but close to the highest sex-specific 99<sup>th</sup> percentile URL.
3. A concentration that challenges the upper analytical range of reportable cTn results (e.g., multiples above the 99<sup>th</sup> percentile URL).

Technopath's Multichem<sup>®</sup> hsTn facilitates laboratories to monitor the precision of high sensitivity assays at ultra-low concentrations and when used in conjunction with Multichem IA Plus (Technopath's leading consolidated immunoassay QC), can help laboratories to meet their regulatory goals.

## Beckman Coulter Access hsTnI (High Sensitivity Troponin)



A full suite of other cardiac markers are available in our consolidated immunoassay QC

## Multichem<sup>®</sup> IA Plus

Multichem IA Plus contains 86 analytes including fertility and thyroid hormones, steroid hormones, cardiac markers, anaemia markers, therapeutic drugs, adrenal markers, bone metabolism markers and tumour markers.

Replace 4 competitor products with Multichem IA Plus



## Ordering Information

Product	Description	Configuration	Part Code
Multichem® hsTn	Assayed Single Level	12 x 3mL	HS301A
	Unassayed Single Level	12 x 3mL	HS301X
	Unassayed Single Level Mini Pack	3 x 3mL	HS301MX
Multichem® IA Plus	Unassayed Tri-Level	3 x 4 x 5mL	IA310X
	Assayed Tri-Level	3 x 4 x 5mL	IA310A



## Designed to complement and support Technopath's Multichem® Quality Control (QC) product range.

IAMQC Software provides Laboratory Managers and Technologists with a range of QC software tools to analyse their QC results in real-time. IAMQC Software products allow users to automate, centralise and standardise QC processes in a laboratory setting. Our combination of software modules satisfy the varying levels of QC requirements in individual laboratories and are easily tailored to meet different QC management expectations.

Interfacing options available for Beckman Coulter instrumentation.



For more information, visit [www.technopathcd.com](http://www.technopathcd.com)

1. High-sensitivity cardiac troponin I at presentation in patients with suspected acute coronary syndrome: a cohort study. Anoop S V Shah\*, Atul Anand\*, Yader Sandoval, Kuan Ken Lee, Stephen W Smith, Philip D Adamson, Andrew R Chapman, Timothy Langdon, Dennis Sandeman, Amar Vaswani, Fiona E Strachan, Amy Ferry, Alexandra G Stirzaker, Alan Reid, Alasdair J Gray, Paul O Collinson, David A McAllister, Fred S Apple, David E Newby, Nicholas L Mills; on behalf of the High-STEACS investigator\*. *www.thelancet.com*, Published online October 8, 2015. [http://dx.doi.org/10.1016/S0140-6736\(15\)00391-8](http://dx.doi.org/10.1016/S0140-6736(15)00391-8)
2. de Lemos JA, Drazner MH, Omland T, et al. Association of troponin T detected with a highly sensitive assay and cardiac structure and mortality risk in the general population. *JAMA* 2010;304(22):2503-2512.
3. Clinical Laboratory Practice Recommendations for the Use of Cardiac Troponin in Acute Coronary Syndrome: Expert Opinion from the Academy of the American Association for Clinical Chemistry and the Task Force on Clinical Applications of Cardiac Bio-Markers of the International Federation of Clinical Chemistry and Laboratory Medicine. Alan H.B. Wu, Robert H. Christenson, Dina N. Greene, Allan S. Jaffe, Peter A. Kavsak, Jordi Ordóñez-Llanos and Fred S. Apple. *Clinical Chemistry* 64:4 645-655 (2018)

