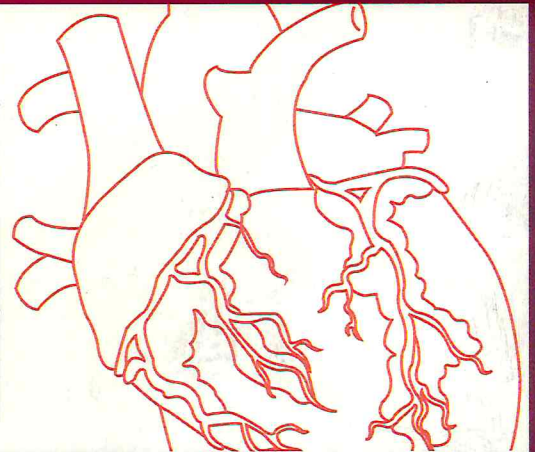
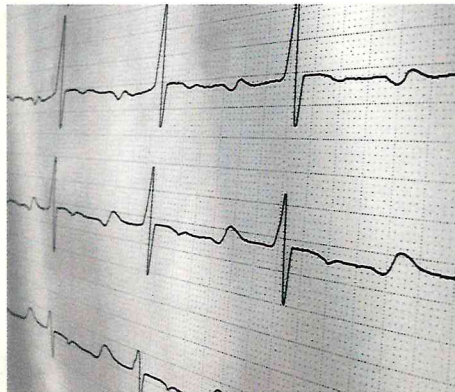
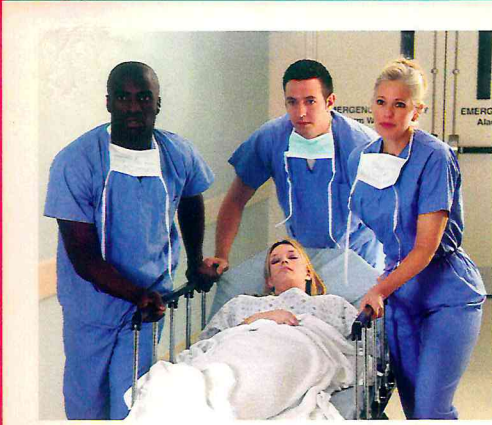
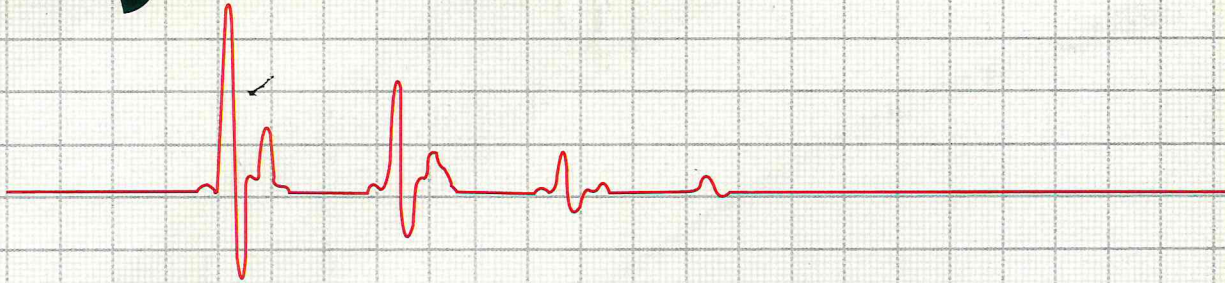


SD BIO LINE

Troponin I TnI/Myo Duo



- One step ICA test for the qualitative detection of cardiac troponin I and Myoglobin
- Diagnosis of AMI(acute myocardial infarction) as emergency use
- Cut-off level : TnI (1ng/ml) / Myo (50ng/ml)
- Specimen : Whole blood, Serum, Plasma
- Sample containing in EDTA, heparin & citrate, available.
- Both capillary and venous blood available

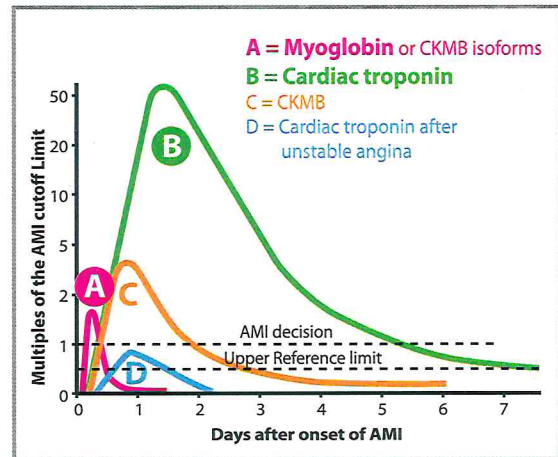
Cardiac Marker Responses to AMI

Myoglobin

- First detectable in 1-4 hours, peaks in 6 hours, lasts for 24 hours
- Early and sensitive diagnosis of MI in the emergency department
- It turns positive sooner than troponin
- Non-specific – also present in skeletal muscle

Troponin I

- Early rise in serum levels as CK-MB (2-4 hours) but stays elevated longer (10-14 days), peaks in 12 hours
- Only found in cardiac muscle
- Powerful tool for risk stratification
- Greater sensitivity and specificity than CK-MB
- Detects recent MI up to 2 weeks
- Not elevated in patients under a variety of clinical conditions like Chronic muscle disease or Renal failure



Criteria for Acute Evolving or Recent MI



ESC/ACC Guideline(2000)

ESC: European Society of Cardiology
 ACC: American College of Cardiology

Either one of the following criteria satisfies the diagnosis of an acute, evolving or recent MI:

- 1. Rise and fall of biochemical markers** for myocardial necrosis with at least one of the following:
 - Ischemic symptoms
 - Development of pathologic Q waves on ECG
 - ECG changes indicative of ischemia (ST elevation or depression)
 - Coronary artery intervention (e.g., angioplasty)
- 2. Pathologic findings of AMI**
 Recent consensus documents by the **ESC and the ACC** make specific **recommendations on the use of biomarkers for the detection of myocardial infarction.**
 - Sensitive biochemical markers enable the detection of myocardial necrosis too small to be associated with QRS abnormalities
 - The use of cardiac markers has become the standard to risk-stratify chest pain patients

WHO Criteria

WHO criteria have classically been used to diagnose MI; a patient is diagnosed with myocardial infarction if two (probable) or three (definite) of the following criteria are satisfied:

- Clinical history of ischaemic type chest pain lasting for more than 20 minutes
- Changes in serial ECG tracings
- Rise and fall of serum cardiac biomarkers such as creatine kinase-MB fraction and troponin.

The WHO criteria were refined in 2000 to give more prominence to cardiac biomarkers.

According to the new guidelines, a cardiac troponin rise accompanied by either typical symptoms, pathological Q waves, ST elevation or depression or coronary intervention are diagnostic of MI.

Alpert JS, Thygesen K, Antman E, Bassand JP. (2000). "Myocardial infarction redefined—a consensus document of The Joint ESC/ACC Committee for the redefinition of myocardial infarction". J Am Coll Cardiol 36 (3): 959-69

Advantage of SD BIOLINE Cardiac Rapid Test

1. Easy to use

- One Step rapid test
- Sample: Serum, Plasma, Whole blood (80µl)
- 3 kinds of anti-coagulant available(EDTA, Heparin, Citrate)
- Capillary & Veinous whole blood available

2. Clear reading

- Clear Background
- Fast Migration
- Red blood cell (RBC) trapped completely

3. Accurate results

- High accuracy at Native Troponin complex specially at real-AMI patient

Usefulness TnI/Myo Duo test

- The effectiveness of thrombolytic therapy is highest in the first 2 hours.
- Due to Myo initially elevates in blood within 2 hours after symptom, determining both Myo(for sensitivity) and Tn I (for specificity) is useful for diagnosis and treatment AMI.

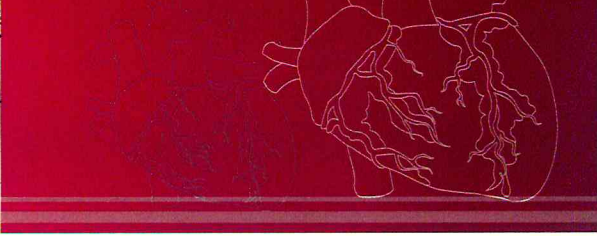
Performance

> Troponin I

			SD BIOLINE Tn I		
			POS	NEG	
Confirmed Samples	POS	52	50	2	Sensitivity: 96.2 %
	NEG	360	0	360	Specificity: 100 %

> Myoglobin

			SD BIOLINE TnI/Myo		
			POS	NEG	
Confirmed Samples	POS	52	52	0	Sensitivity: 100 %
	NEG	370	10	360	Specificity: 97.2 %



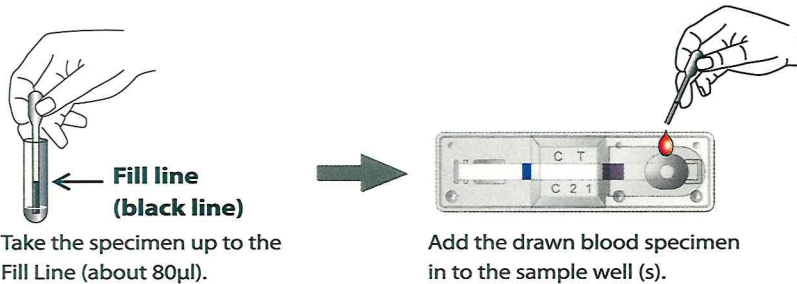
SD BIOLINE Cardiac Rapid Test

- > 3 kinds of anti-coagulant available (EDTA, Heparin, Citrate)
- > Capillary & venous whole blood available
- > Fast Migration
- > RBC trapped completely
- > High accuracy at real-AMI patient

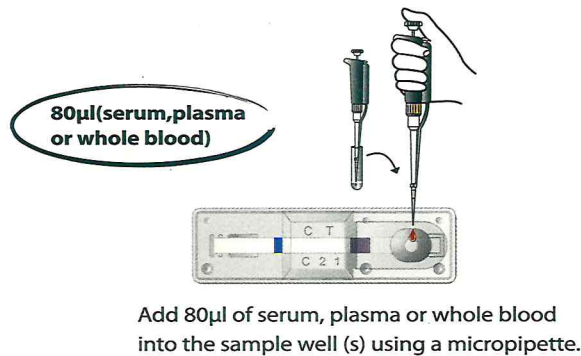


Test Procedure

Using a Disposable Dropper



Using a Micropipette

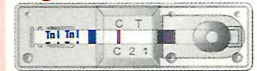


15 min

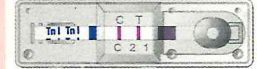
Interpretation

Troponin I

Negative



Positive



Myoglobin

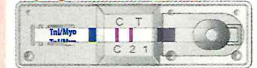
Negative



Troponin I Positive



Myoglobin Positive



Tni/Myo Positive



Ordering Information

Cat.No.	ITEM	SPECIMEN	TYPE	PACK SIZE	STORAGE
90FK10	Troponin I	Whole blood/ Serum/Plasma	Device	1T×25/Kit	1~30°C 24months
95FK10	Tni/Myo Duo	Whole blood/ Serum/Plasma	Device	1T×25/Kit	1~30°C 24months