



High Analytical Sensitivity

Fast Detection Time

Multi Colors

Cellulose Nano Beads

**NanoAct**<sup>TM</sup>

New Label for LFIA

Labels Innovation for Lateral Flow Immunoassay



Excellent Uniformity

Binder Free

Wide Variety

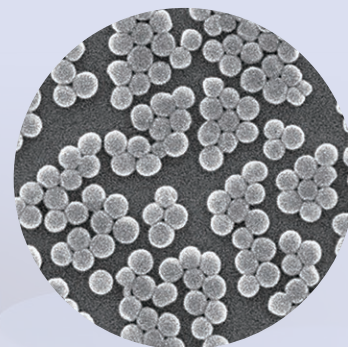
Unique Non-woven pads

**Microline**<sup>TM</sup>

Non-woven Pads for LFIA

**AsahiKASEI**

Utilizing our cellulose technology that has been matured and advanced for over 80 years, Asahi Kasei has developed innovative colored nano beads. By using these nano beads as labels for lateral flow immunoassays, we not only have achieved increased sensitivity and faster detection times, but also enabled multi-coloring of assays based on the unique characteristics of cellulose materials.



For more detailed information, please visit here.

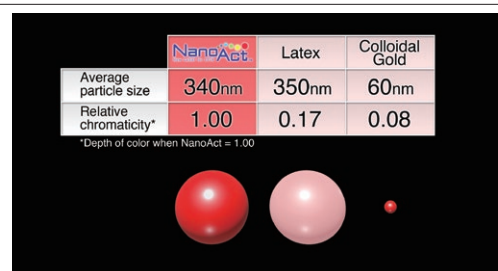


## The Feature

NanoAct™ can meet your needs.

### High Analytical Sensitivity

Compared to other labeling beads, conjugated NanoAct™ on the test lines offers better visibility thanks to its larger diameter and high color intensity. Therefore, NanoAct™ presents superior detection of low antigen concentrations.



### Faster Detection Time

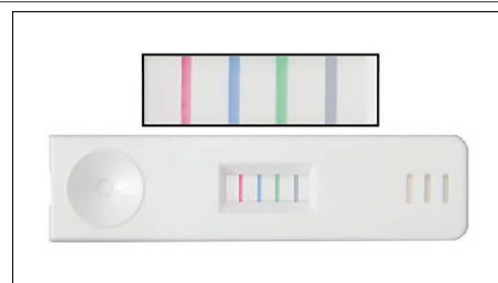
NanoAct™ can achieve higher visibility on the test line, leading to faster detection time.

[Picture on the right side] Comparison between a NanoAct™-based (above) and a colloidal gold-based (below) test strip. With the same antigen concentrations, the test line on the NanoAct™-based strip appeared more visible 3 minutes after adding the samples.



### Multiple Colors

We offer multiple colors of NanoAct™ for use in multiplexing.

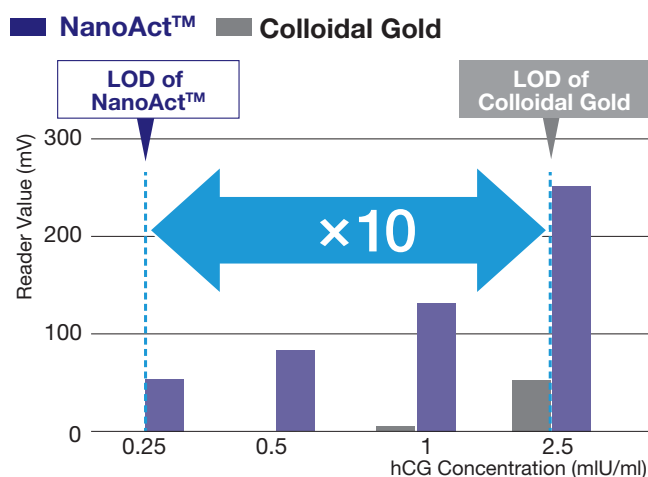


## Model Study

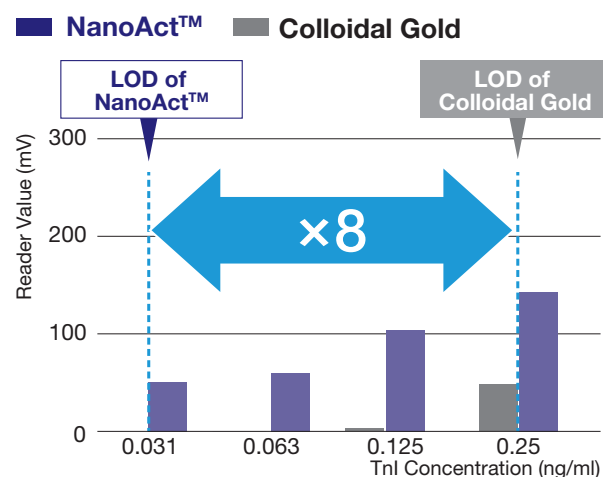
\*Data provided by DCN diagnostics

NanoAct™ shows excellent limit of detection (LOD) compared to Colloidal Gold.

### hCG



### Troponin I



◆ In the sandwich assays or the competitive assays, results with NanoAct™ superior to Colloidal Gold are obtained.

## Product Information

Cat #	Type	Color	Diameter (nm)	OD (ABS, 1wt%)	Conc. (wt%)
RE1AA	Passive Adsorption	Red	330	225	1.05
RE2AA		Dark Red	340	240	
BL1AA		Navy	325	255	
BL2AA		Dark Navy	365	265	
GR1AA		Green	335	160	
KR1AA		Black	350	150	
RE1CA	Covalent (COOH)	Red	335	220	
BL1CA		Navy	320	230	
GR1CA		Green	335	155	

◆ The above values are not guaranteed.





# Microline™

Non-woven Pads for LFIA

Asahi-Kasei has developed non-woven fabrics for in-vitro diagnostics that exhibit excellent uniformity and versatility in applications. We can provide pads in various sizes and shapes to meet customer requirements.

For more detailed information, please visit here.

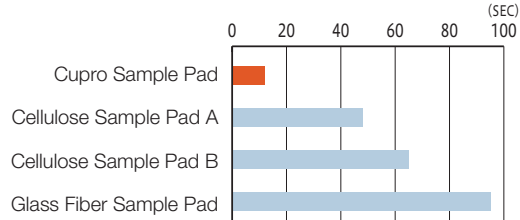


## 1 Sample Pad

- High flow rate
- Minimal fiber shedding
- Binder Free



Flow rate comparison test (Test method : JIS L 1096 B)



## 2 Conjugate Pad

- Minimal fiber shedding
- Binder Free



Product Information

Cat#	Reference (Old Item #)	Application	Material Composition	Basis Weight (g/m <sup>2</sup> )	Thick- ness (mm)	Wicking Rate (sec/4cm)	Water Absorption (mg/cm <sup>2</sup> )
CBSP060	S-01	Sample pad	Cupro (Cellulose)	60	0.47	23	54
CBSP100	S-02			100	0.39	13	57
CBSP097	S-06		Cupro/PE/PET	97	0.34	26	63
PSCP250	250Y	Conjugate pad	PET coarse fiber	250	0.54	-	-

Cat#	Water Absorption	Features	Other Conventional Materials
CBSP060	hydrophilic	<ul style="list-style-type: none"><li>• Uniformity</li><li>• Quick liquid absorption and release</li><li>• High purity</li></ul>	Cellulose nonwoven, paper low basis weight (80-200g/m <sup>2</sup> )
CBSP100			
CBSP097			
PSCP250	hydrophobic	<ul style="list-style-type: none"><li>• Uniformity</li><li>• Less hazardous in manufacturing</li></ul>	Glass Fiber



# AsahiKASEI

## Partnership

### DCN Diagnostics

For more technical support such as assay developments and consultations, our partner company, DCN Diagnostics can assist you.

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