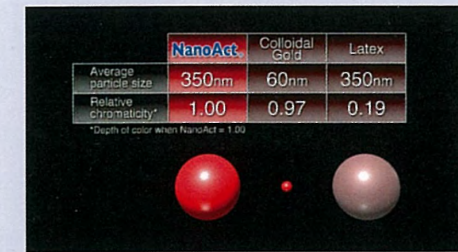


## The Feature

NanoAct™ can meet your needs as written below.

### High Analytical Sensitivity

Compare to commercialized labels, with the combination of a large diameter and color intensity, conjugated NanoAct™ on the test lines produces better visibility, and NanoAct™ presents better detection of low antigen concentrations.



### Faster Detection Time

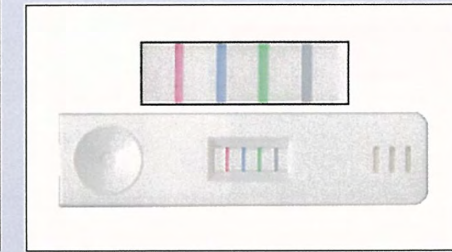
Higher visibility of NanoAct™ can be achieved on a test line, that can lead to faster detection time.

\*Comparison between NanoAct™ based test strip (above) and Colloidal Gold based strip (below). Using same antibody concentrations, test lines 3 minutes after adding samples appeared more visible on NanoAct™.



### Multiple Colors

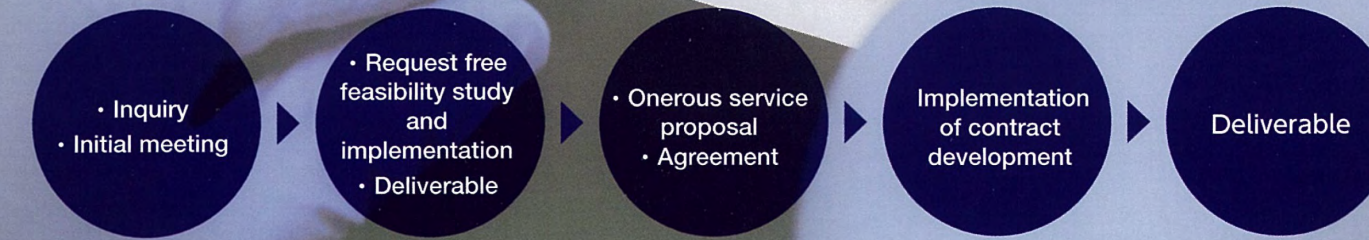
NanoAct™ can be produced in multiple colors and can be utilized for multiplexing.



## Lateral Flow Assay Development Service

We offer a lateral flow assay development service to support your research and development. We have expertise and experiences in immunochromatography built up over years using our NanoAct™. Our development services ensure to meet customers' research and development needs.

### Service process



Cellulose Nano Beads

# NanoAct™

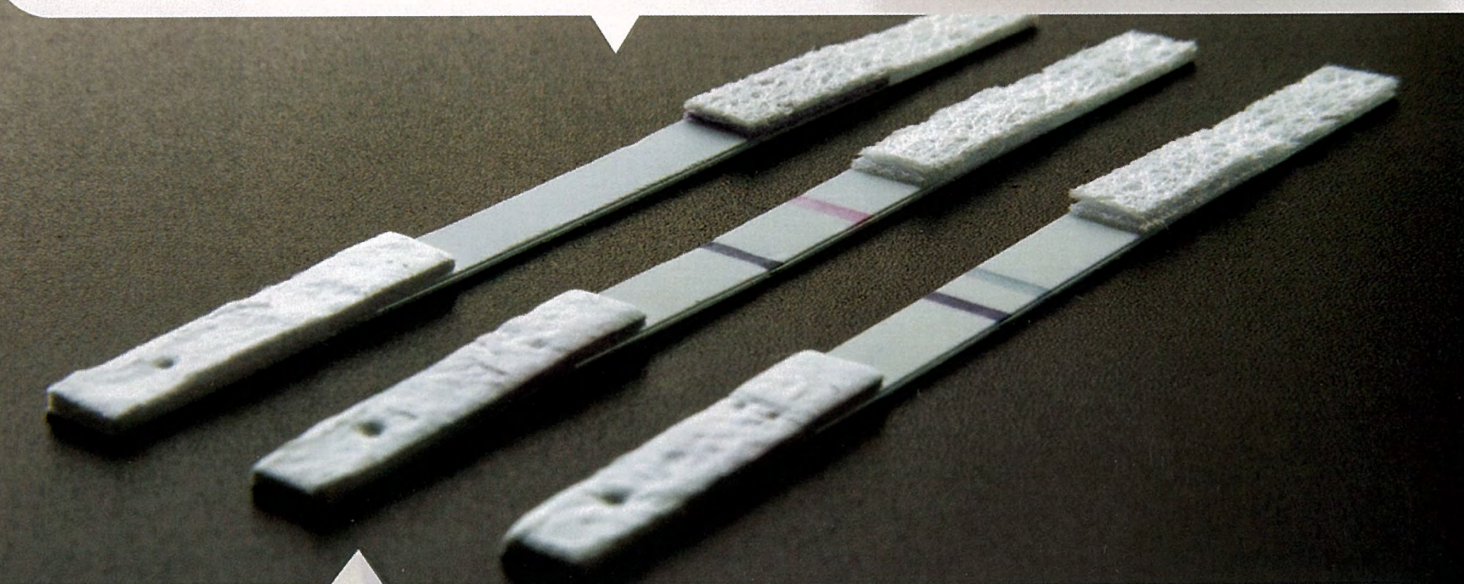
New Label for LFIA

Labels Innovation for Lateral Flow Immunoassay

High Analytical Sensitivity

Fast Detection Time

Multi Colors



### Lateral Flow Assay Development Service

Our Lateral Flow Immunoassay Development Service		
Item	Feasibility Study	Project
Service outline	Development service based on feasibility study request form	Onerous development service based on contract development agreement
Fee for Service	Free up to 7 days	Charge for the man-hours and reagents
Delivery Period	Min. 7 days	Discussed in contract
Fee for NanoAct	Free	Free
Payment term	—	After receiving deliverables
Deliverables	Verbal or brief written report	Written report with all information
Application Process	Feasibility study request form	Contract development agreement

The service fee and delivery time will vary depending on your request and schedule. We may request sample shipment depending on your request. Please contact to the following contact address for inquiries or meeting requests.

### Partnership

#### DCN Diagnostics

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

<https://www.dcn-dx.com/>  
6354 Corte del Abeto, Suite B,  
Carlsbad, CA USA 92011  
Phone: 1-760-804-3886



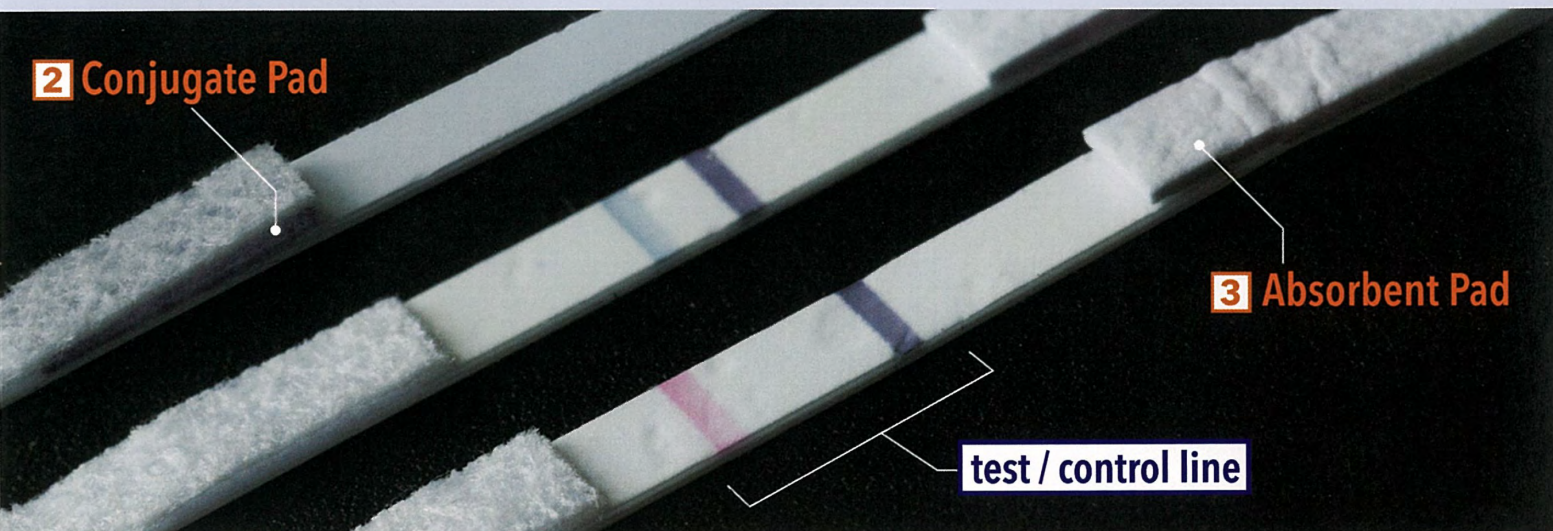
## AsahiKASEI

[Contact Information]

Asahi Kasei Corporation  
Performance Products SBU  
Biomaterial Business Development Dept.

cnb-pt@om.asahi-kasei.co.jp  
TEL: +81-3-6699-3806  
<http://www.asahi-kasei.co.jp/fibers/en/cnb/>

## AsahiKASEI

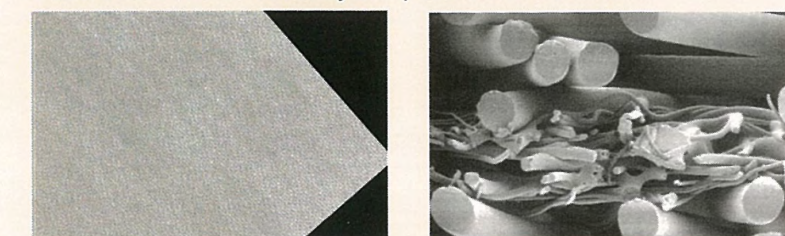


### 1 Sample Pad

- High flow rate
- Ultra low fibers release
- Binder Free

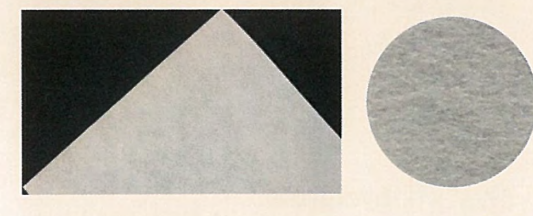


- Sample pad made by PET has three layered structure. Micro fiber in the middle layer expected to work as filter.



### 2 Conjugate Pad

- Ultra low fibers release
- Binder Free



### 3 Absorbent Pad

- PET micro fiber nonwoven with hydrophilic treatment.
- Uniformity and very fast liquid retention and absorbency.





# NanoAct

Utilizing our cellulose technology matured and advanced for more than 80 years, Asahi Kasei has developed patented and innovative colored nano beads. Using the nano beads as labels for lateral flow immunoassays, not only increased sensitivity and faster detection times are achieved, multi coloring derived from unique characteristics of cellulose materials becomes available.

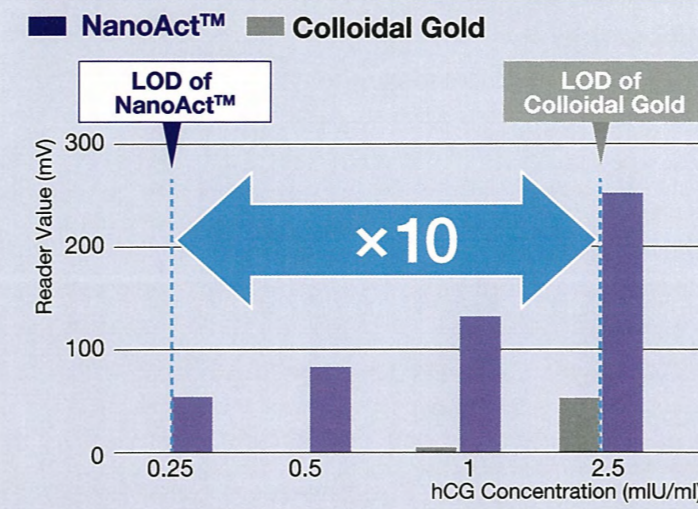


## Model Study

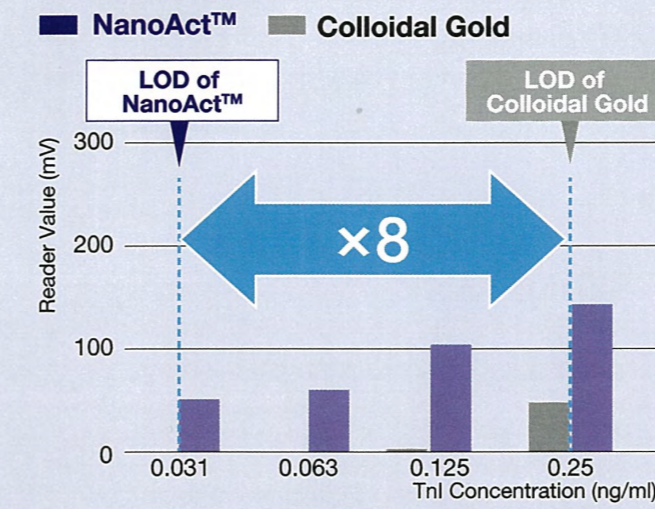
\*Data provided by DCN diagnostics

NanoAct™ shows excellent visibility 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

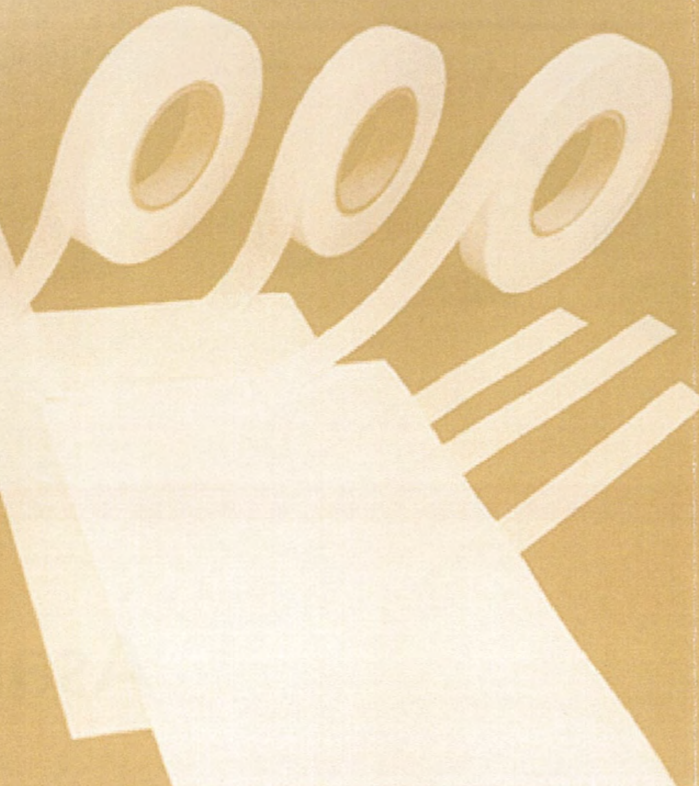
Cat #	Type	Color	Diameter (nm)	OD (ABS, 1wt%)	Conc. (wt%)
RE1AA	Passive Adsorption	Red	330	225	1.0
RE2AA		Dark Red	340	240	
BL1AA		Navy	325	250	
BL2AA		Dark Navy	365	265	
GR1AA		Green	335	160	
KR1AA		Black	350	150	
RE1CA	Covalent (COOH)	Red	335	220	1.0
BL1CA		Navy	320	230	
GR1CA		Green	335	155	

◆ Fluorescent beads will soon be available on request.  
◆ In addition to the standard items, we can provide different diameters, colors, ODs according to customers' needs.



# Microline

Asahi Kasei produced various types of non-woven fabrics and has developed into pads for IVD which have excellent uniformity and respond to various applications. In addition, sizes and shapes can be provided in various variations according to customer requirements.



## Product Information

Cat#	Reference (Old Item #)	Application	Material Composition	Basis Weight (g/m <sup>2</sup> )	Thickness (mm)	Wicking Rate (sec/4cm)	Water Absorption (mg/cm <sup>2</sup> )	Water Absorbent	Features	Referred Material
CBSP060	S-01	Sample pad	Cupro (Cellulose)	60	0.47	23	54	hydrophilic	• Fast liquid retention and spreading • High purity	Cellulose nonwoven, paper low basis weight (80-200g/m <sup>2</sup> )
CBSP100	S-02			100	0.39	13	57			
CBSP097	S-06		Cupro/PE/PET	97	0.34	26	63			
PPSP100	A-01		PET (Three layer/SMS)	100	0.25	115	11	hydrophobic	• Microfiber in the middle layer expected to work as filter	
PMA080	AK2-1	Sample pad/ Absorbent pad	PET (Microfiber)	80	0.19	67	15	hydrophilic treatment	• Uniformity • Good machinability • Very fast liquid retention and absorbency	
PMA090	AK2-2			90	0.38	28	37			
PMA180	AB-02	Absorbent pad	PET(MF)/PE/PET(MF)	180	0.78	24	65			Cellulose nonwoven, paper high basis weight (+200g/m <sup>2</sup> )
PSCP250	250Y	Conjugate pad	PET Coarse FIBER	250	0.54	-	-	hydrophobic	• Uniformity • Less hazardous in process	Grass fiber

◆ Custom roll, sheet, or disc sizes available upon your request.