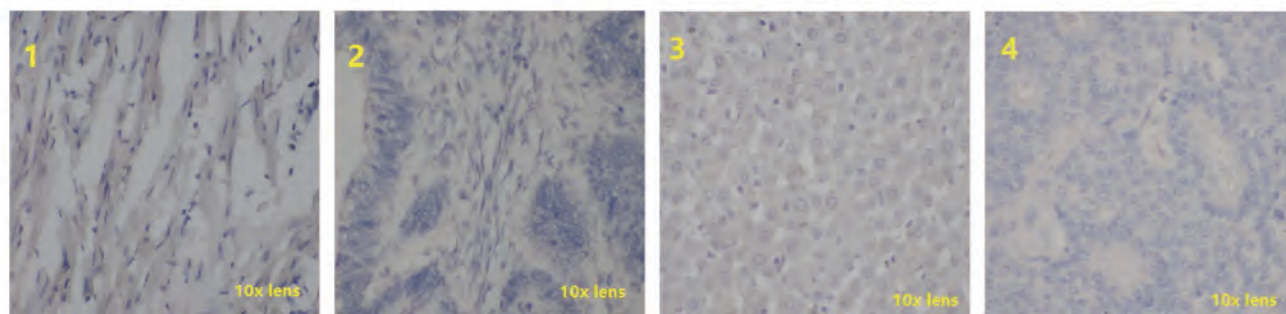


Human Kidney Tissue^(A,D,F,N), Human Liver Cancer Tissue^(B,E), Human Breast Tumor Tissue^(C,J,K), Human Colon Cancer Tissue^(H,I,L,M), Rat Heart Tissue^(G).
 FineTest® Poly-HRP Goat anti Rabbit IgG and Poly-HRP Goat anti Mouse IgG with 1:100 dilutions. Staining with DAB for 10 minutes, nuclei were counterstained with Mayor's Hematoxylin.

Negative Control Test



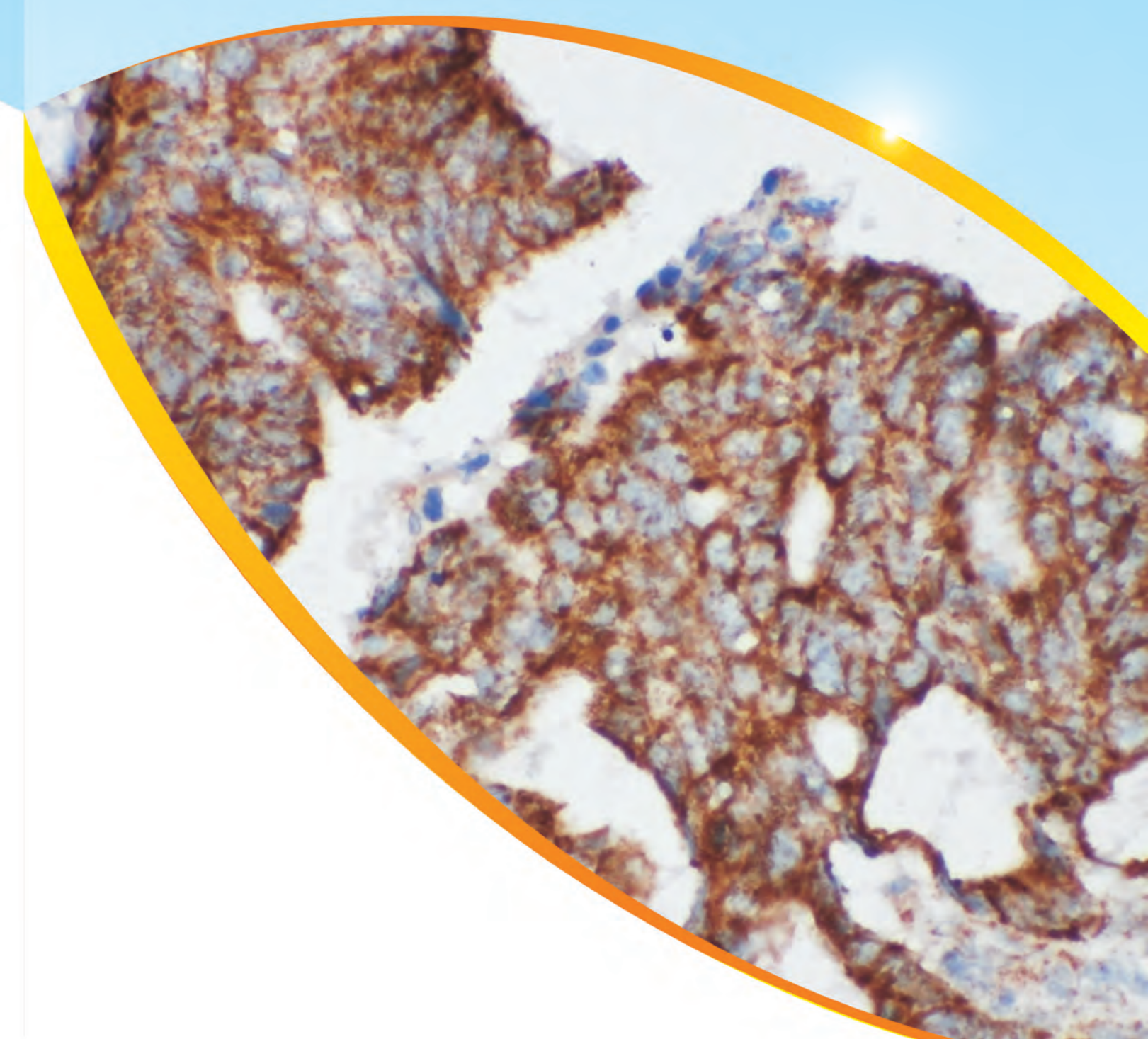
Rat Heart Tissue⁽¹⁾, Human Colon Cancer Tissue⁽²⁾, Rat Liver Tissue⁽³⁾, Human Breast Tumor Tissue⁽⁴⁾.
 Negative serum as primary antibody, FineTest® Poly-HRP Goat anti Rabbit IgG and Poly-HRP Goat anti Mouse IgG with 1:50 dilution. Staining with DAB at 10 minutes, nuclei were counterstained with Mayor's Hematoxylin.

Conclusion

When execute IHC experiment, FineTest® Poly-HRP secondary antibodies got an excellent signal amplification without non-specific reaction and greatly simplified the experimental procedure.

Catalogue No.	English name	Tested application
ES-0005	Poly HRP-conjugated Affinipure Goat Anti-Mouse/Rabbit IgG (H+L)	IHC, ELISA
ES-0004	Poly HRP-conjugated Affinipure Goat Anti-Rabbit IgG (H+L)	ELISA, WB, IHC
ES-0003	Poly HRP-conjugated Affinipure Goat Anti-Mouse IgG (H+L)	ELISA, WB, IHC
ES-0002	SABC one-component	Elisa
ES-0001	SABC two-component	IHC
IHC0007	FineTest rabbit-DAB (Poly-HRP) Detection IHC Kit	
IHC0008	FineTest mouse-DAB (Poly-HRP) Detection IHC Kit	

Poly-HRP Secondary Antibodies



Wuhan Fine Biotech Co., Ltd

+86-027-87384275/87800889 +86-027-87800889

fine@fn-test.com www.fn-test.com

B9 Bld, High-Tech Medical Devices Park, No.818 Gaoxin Ave.
 East Lake High-Tech Development Zone, Wuhan, China(430206)



Introduction

The peroxidase-labeled antibody (Ab) method, introduced in 1968, was the first practical application of antibodies to paraffin-embedded tissues for most clinical and research studies (Nakane, 1968). However, conventional HRP conjugates secondary Ab(IgG) are basically limited to less than 3 molecules of HRP per single IgG molecule, This molar ratio of conjugation is sufficient in routine Western blot or Elisa, but may lack the sensitivity required for detecting targets present in picogram to femtogram amounts without the use of additional steps to amplify the signal, in particular, immunohistochemistry.

During the past few decades, improvements in the reagents and protocols used for immunohistochemistry have increased sensitivity of detection systems. A several-fold higher antigen detectability than those achieved in (enzyme-anti-enzyme immune complex techniques (PAP and APAAP) (Sternberger et al., 1970) or in (standard avidin/streptavidin-biotin-complex (ABC or SABC) and Labeled Streptavidin-Biotin (LSAB) protocols) can be gained with the chain polymer-conjugate technology developed in the former century.

However, PAP and APAAP method which will form a huge skeleton structure in aqueous environment appears to create spatial hindrance, thus reducing the penetrative ability of the detection reagent, especially for hidden nuclear antigens. (Shi et al., 1999 and citations therein).

Since biotin (vitamin H) which is contained in many tissues has been introduced in ABC (SABC) method, it can combine with ABC (SABC), thereby generate nonspecific staining.

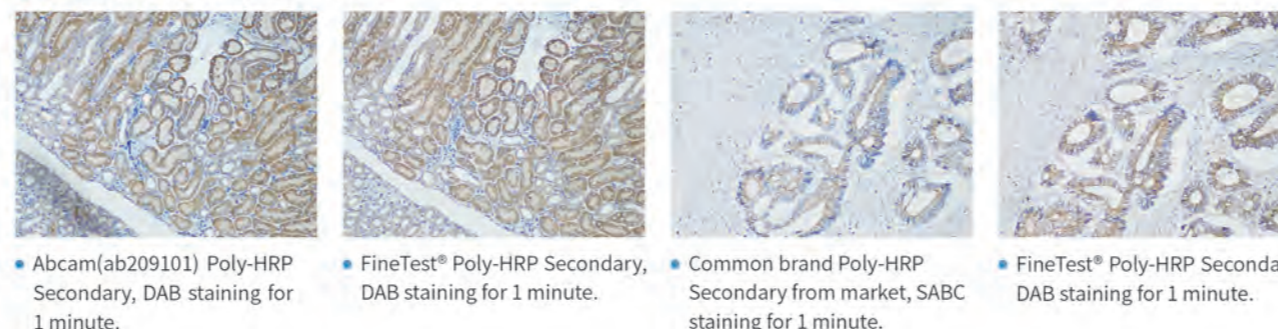
FineTest® adopts a new polymerase-mark system (including Poly-HRP Goat Anti-Rabbit IgG and Poly-HRP Goat Anti-Mouse IgG). More enzymes will connect to the single antibody through the arm structure. Meanwhile, the optimal structure of new system enhances the signal during immunochemistry and reduces non-specific reaction as well as simplifies the experimental steps.



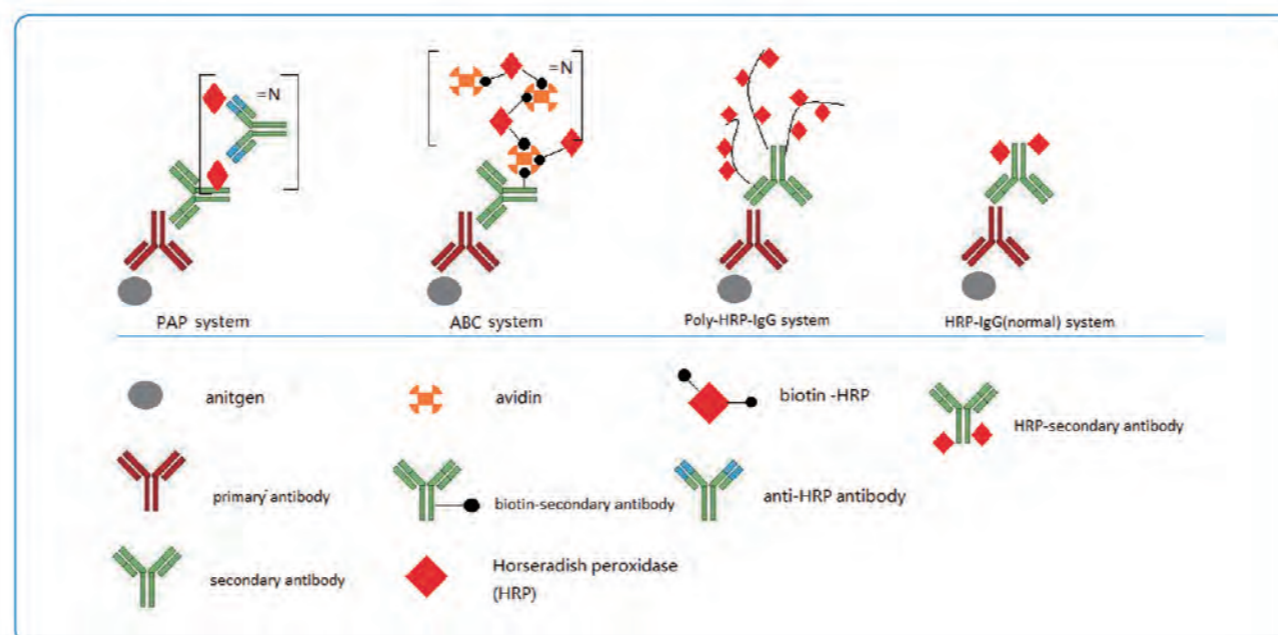
Different Detection Systems Contrast

Amplification system	Size	Components	The experimental steps	Signal
PAP, APAAP	Very large >5000kd	Anti-HRP-IgG HRP HRP-IgG	1. primary antibody 2. PAP or APAAP	Medium
ABC(SABC)	Large >2000kd	Avidin(StreptAvidin) Biotin-HRP	1. primary antibody 2. biotin-secondary antibody 3. ABC(SABC)	Strong
Poly-HRP-IgG	Medium: 700-1200kd	HRP(multiple)-IgG (secondary antibody)	1. primary antibody 2. secondary antibody	Very strong
HRP-IgG(normal)	Small: 200-282kd	HRP(1-3)-IgG (secondary antibody)	1. primary antibody 2. secondary antibody	Weak or none

★ Contrast With Other Brands



★ Schematic Diagram



IHC Test

FineTest® respectively tested high level targets (loading control antibodies) and lower level targets. Poly-HRP Goat anti Rabbit IgG, Poly-HRP Goat anti Mouse IgG and DAB kit are from FineTest®.

High Level Targets

Antibodies	Dilution	Location	Cat. No.
Histone H3.3 ^(A)	1:150	Nucleus	FNab03888
PCNA ^(B)	1:200	Nucleus	FNab06216
a-Tubulin ^(C)	1:300	Cytoplasm, Cytoskeleton	FNab00333
GAPDH ^(D)	1:500	Cytoplasm, Nucleus	FNab03342
Lamin A/C ^(E)	1:400	Nucleus	FNab04681
VDAC1 ^(F)	1:400	Cell membrane, Mitochondrion	FNab09826
β-actin (monoclonal) ^(G)	1:250	Cytoplasm, Cytoskeleton	FNab00873

Low Level Targets

Antibodies	Dilution	Location	Cat. No.
TRX-1 ^(H)	1:300	Cytoplasm, Nucleus	FNab09033
PXMP2 ^(I)	1:150	Peroxisome membrane	FNab06965
TTK ^(J)	1:200	Cytoskeleton	FNab09094
MEK3 ^(K)	1:300	Cytoplasm, Nucleus	FNab05114
MAP3K3 ^(L)	1:300	Cytoplasm	FNab09830
HDAC5 ^(M)	1:250	Cytoplasm, Nucleus	FNab03802
P2RX7 ^(N)	1:250	Cell membrane	FNab06071

