

Basic Information

Product Name	Anti-a-SMA/ACTA2 Antibody (Clone#1A4)	
Gene Name	ACTA2	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG2a	
Species Reactivity	human, mouse, rat	
Tested Application	WB,IHC,IF	
Contents	200ug/ml antibody with PBS , 0.02% NaN ₃ , 1mg BSA and 50% glycerol.	
Immunogen	N-terminal synthetic decapeptide of alpha-smooth muscle actin.	
Concentration	200ug/ml	
Purification	protein G purified.	
Observed MW	42 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:1000-5000 Immunofluorescence (IF): 1:1000-5000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Ueyama et al.(1990) assigned the ACTSA gene to chromosome 10 by Southern blot analysis of DNAs from 18 rodent-human somatic cell hybrids. Regional mapping by in situ hybridization localized the gene to 10q22-q24. Assignment of the vascular smooth muscle actin gene ACTSA to human chromosome. Smooth muscle alpha-actin gene requires two E-boxes for proper expression in vivo and is a target of class I basic helix-loop-helix proteins.

Reference

Anti-a-SMA/ACTA2 Antibody (Clone#1A4)被引用在551文献中。

Selected Validation Data

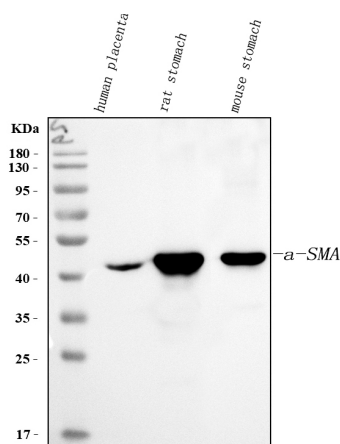


Figure 1. Western blot analysis of anti- α -SMA antibody (BM0002).

The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates,

Lane 2: rat stomach tissue lysates,

Lane 3: mouse stomach tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti- α -SMA antigen affinity purified polyclonal antibody (BM0002) and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for α -SMA at approximately 42 kDa. The expected band size for α -SMA is at 42 kDa.

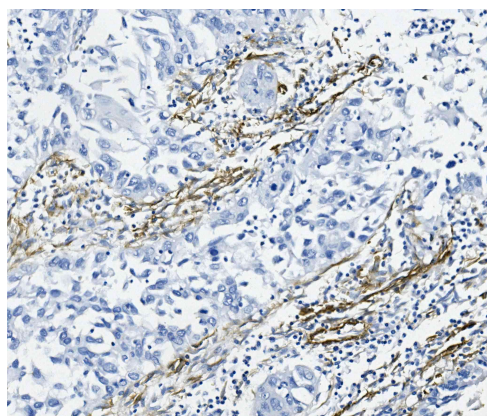


Figure 2. IHC analysis of α -SMA using anti- α -SMA antibody (BM0002).

α -SMA was detected in a paraffin-embedded section of human lung cancer tissue. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB (Catalog # AR1022) as the chromogen.

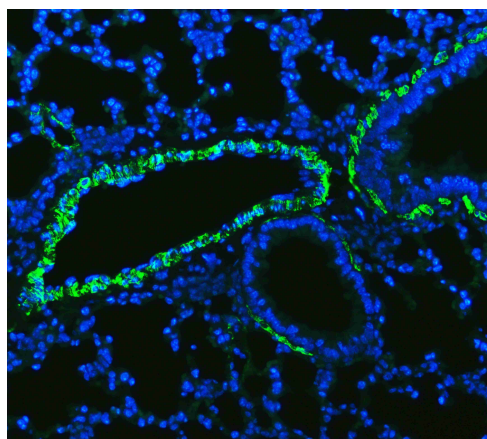


Figure 11. IF analysis of α -SMA using anti- α -SMA antibody (BM0002).

α -SMA was detected in a paraffin-embedded section of rat lung tissue. Dylight488 conjugated Anti-mouse IgG Secondary Antibody ((green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).