For Research Use Only

CoraLite® Plus 647-conjugated a-SMA specific Recombinant monoclonal antibody

Catalog Number:CL647-80008-2

proteintech®
Antibodies | ELISA kits | Proteins
www.ptglab.com

Basic Information

Catalog Number:
CL647-80008-2

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
NM_001613

GeneID (NCBI):
59

UNIPROT ID:
P62736

Full Name:
actin, alpha 2, smooth muscle, aorta

Calculated MW:
42 kDa

Purification Method:
Protein A purification

CloneNo.:
250297G8

Recommended Dilutions:
IF-P: 1:50-1:500

Excitation/Emission maxima wavelengths:
654 nm / 674 nm

Applications

Tested Applications:
IF-P

Species Specificity:
human, mouse

Positive Controls:

IF-P : mouse heart tissue,

Background Information

Alpha smooth muscle actin (α -SMA or ACTA2) is an actin isoform predominantly expressed in smooth muscle cells and is the most widely recognized marker for activated myofibroblasts. In healthy adult tissues, its expression is largely restricted to vascular and visceral smooth muscle. However, during tissue injury, fibrosis, or wound healing, fibroblasts differentiate into myofibroblasts with significant upregulation of α -SMA. Therefore, α -SMA serves as a critical immunohistochemical marker for detecting myofibroblast activation and studying pathological processes such as organ fibrosis (e.g., liver, kidney, lung) and cancer stroma remodeling.

Storage

Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% glycerol, 0.05% Proclin300, 0.5% BSA, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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Selected Validation Data

Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse heart tissue using CoraLite® Plus 647 a-SMA specific antibody (CL647-80008-2, Clone: 250297G8) at dilution of 1:200. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).