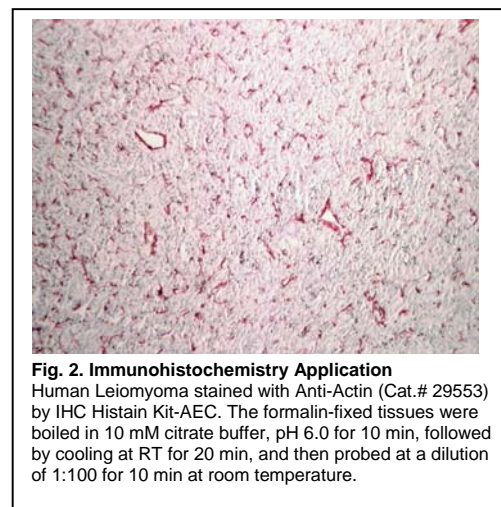
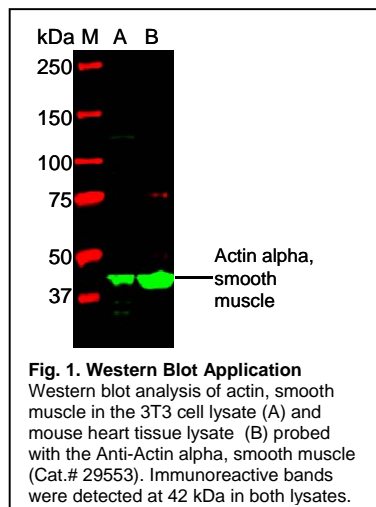
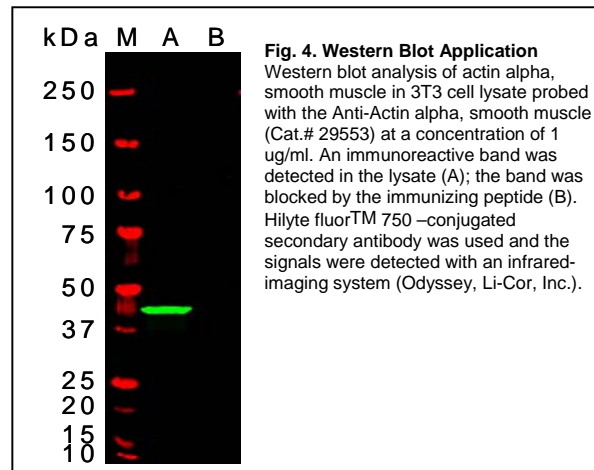
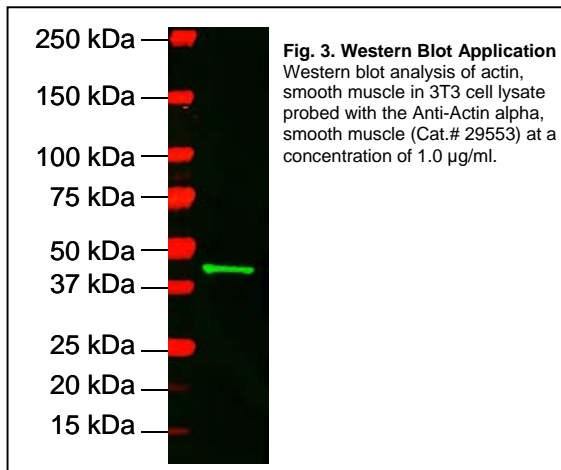




Product Data Sheet

Product Name:	Anti-Actin alpha, smooth muscle Antibody
Catalog Number:	29553
Lot Number:	See label on vial
Product Description:	This polyclonal antibody is supplied as an epitope affinity purified rabbit IgG, 50 µg in 250 µl of phosphate buffered saline (pH 7.4) containing 0.05% sodium azide.
Immunogen:	Rabbit Anti-Actin alpha, smooth muscle polyclonal antibody was raised against a synthetic peptide corresponding to the N-terminus of human smooth muscle actin.
Species Reactivity:	The species reactivity is exclusive to human and mouse. The reactivity of Anti-Actin alpha, smooth muscle was confirmed by ELISA. The specificity was confirmed by Western blot analysis in 3T3 cell lysate and mouse heart tissue lysate.
Application Notes:	The following concentration ranges are recommended starting points for this product. ELISA for immunizing peptide: 1:5,000-20,000 WB: 1:500-2,000 IHC: 1:50-200 for 10 min





Background:

Actins are highly conserved proteins expressed in all eukaryotic cells. Actin filaments form part of the cytoskeleton and play essential roles in regulating cell shape and movement. Six distinct actin isotypes have been identified in mammalian cells (1). Each is encoded by a separated gene and is expressed in a developmentally regulated and tissue-specific manner, α and β -cytoplasmic actins are expressed in a wide variety of cells; whereas, expression of α -skeletal, α -cardiac, α -vascular, and γ enteric actins are more restricted to specialized muscle cell type. Smooth muscle α -actin is of further interest because it is one of a few genes whose expression is relatively restricted to vascular smooth muscle cells (2). Furthermore, expression of smooth muscle α -actin is regulated by hormones (3), cell proliferation (4), and altered by pathological conditions including oncogenic transformation (5) and atherosclerosis (6, 7).

Storage:

Store at 2-8°C for up to one year. Avoid repeated freezing and thawing.

References:

1. Buckingham, M. et al. *Adv Exp Med* **182**, 333 (1985).
2. Reddy, S. et al. *J Biol Chem* **265**, 18683 (1990).
3. Hsu, C-Y et al. *J Biol Chem* **262**, 9594 (1987).
4. Owens, G. et al. *J Cell Biol* **102**, 343 (1988).
5. Leavitt, J. et al. *Nature* **316**, 840 (1985).
6. Gabbiani, G. et al. *J Clin Invest* **73**, 148 (1984).
7. Skalli, O. et al. *J Cell Biol* **103**, 2787 (1986).

This product is for in vitro research use only.