



Mouse anti-Chicken Actin Ab-5 monoclonal antibody, clone D5 (CABT-B9173)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	The monoclonal antibody reacts with all known isoforms of actin in vertebrate muscle and non-muscle cells.
Immunogen	Chicken gizzard muscle Actin
Isotype	IgG1, κ
Source/Host	Mouse
Species Reactivity	Human, Mouse, Rat, Dog, Chicken
Clone	D5
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 µg/ml
Size	50 µg, 150 µg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction

Changes in cellular morphology, adhesion, and motility occur through the reorganization of the actin cytoskeleton. This reorganization of actin filaments results from interactions between actin and actin-binding proteins. Actin is a 42-kDa protein that is known as G-actin in its monomeric form. Polymerization of G-actin monomers leads to the generation of flexible filaments, 5-9 nm in diameter, called F-actin. F-actin may be organized in linear bundles called stress fibers or in two-dimensional networks. The latter are highly concentrated beneath the plasma membrane and form the actin cortex. Regulation of actin cytoskeletal dynamics occurs through actin-binding proteins. These proteins bind to G- and/or F-actin and regulate various aspects of actin cytoskeletal dynamics, such as polymerization and depolymerization of actin, cross-linking of actin filaments into bundles, interaction of actin-based structures with membranes and other cytoskeletal elements, and locomotion of actin-based structures. Thus, the actin cytoskeleton is a complex matrix consisting of G- and F-actin along with the multitude of interactions between these actin forms and a variety of different types of actin-binding proteins.

Keywords

ACT1; Actin-1; actin; actin 1; *Arabidopsis* Actin