

# Actin & Tubulin Antibody Sampler Kit

Catalog # AK6060

## Kit Components:

Catalog#	Description	Host	Size	Applications	Species Reactivity	MW (kDa)
AP1671	Actin (Tyr-53), phospho-specific	Rabbit pAb	50 $\mu$ l	WB, E, ICC	H, R, M, B, C	42
AM2021	Actin (C-terminal region)	Mouse mAb	50 $\mu$ l	WB, E, ICC	H, R, M, B, C	42
AP1651	Actin (N-terminal Region)	Rabbit pAb	50 $\mu$ l	WB, E, ICC	H, R, M, B, C	42
TP1721	$\beta$ -Tubulin (Ser-172), phospho-specific	Rabbit pAb	50 $\mu$ l	WB, E, ICC	H, R, M, B, C	50
TM1541	$\beta$ -Tubulin	Mouse mAb	50 $\mu$ l	WB, E, ICC	H, R, M	50
TP1781	$\beta$ -Tubulin (a.a. 168-177)	Rabbit pAb	50 $\mu$ l	WB, E, ICC	H, R, M, B, C	50

Applications: WB = western blot, E = ELISA, ICC = immunocytochemistry. Species: H = Human, R = Rat, M = Mouse, B = Bovine, C = Chicken

## Kit Summary:

The actin and tubulin antibody sampler kit can be used to examine phosphorylation of actin (Tyr-53) and tubulin (Ser-172). In addition, the antibodies included in the kit can be used to detect actin and tubulin expression patterns by western blot or immunocytochemistry.

## Buffers and Storage:

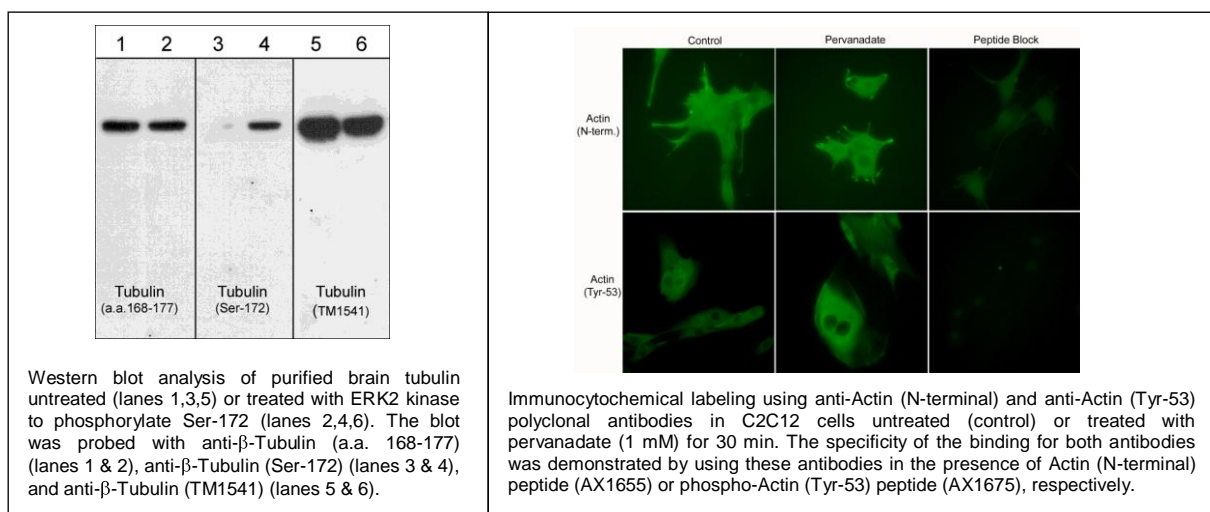
Mouse monoclonal and rabbit polyclonal antibodies are supplied in 50  $\mu$ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at  $-20^{\circ}\text{C}$ . Do not aliquot. Stable for 1 year.

## Background:

Microtubules (MTs) and actin filaments are cytoskeletal elements that play an essential role in cell division, cytoplasmic organization, cell morphology, and motility. MTs are dynamic polymers of  $\alpha/\beta$ -tubulin heterodimers. At least two populations of MTs, called dynamic and stable according to their rates of turnover, are readily distinguishable in cells. Actin filaments are polymers formed by one of six different actin isoforms found in vertebrates. Actin exists in two principal forms, globular, monomeric (G) actin, and filamentous polymeric (F) actin. Phosphorylation may regulate the activity tubulin and actin isoforms. Cdk1 phosphorylation of Ser-172 in  $\beta$ -tubulin occurs in mitotic cells and may impair tubulin incorporation into microtubules. In *Dictyostelium*, actin phosphorylation at Tyr-53 occurs in response to cell stress and this phosphorylation may alter actin polymerization. In B cells, SHP-1 tyrosine dephosphorylation of actin leads to actin filament depolymerization following BCR stimulation.

## References:

- Jungbluth, A. et al. (1995) FEBS Let. 375:87.  
 Baba, T. et al. (2003) J. Immunol. 170:3762.  
 Winder, S.J. et al. (2005) J. Cell Sci. 118:651.  
 Liu, X. et al. (2006) Proc Nat Acad Sci U S A. 103(37):13694.  
 Westermann, S. & Weber, K. (2003) Nat. Rev. Mol. Cell. Biol. 4:938.  
 Fourest-Lieuvain, A. et al. (2006) Mol. Biol. Cell. 17(3):1041.



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