

#8614 Store at -20°C

## Cytoskeletal Marker Antibody Sampler Kit

1 Kit (6 x 20 microliters)



**Cell Signaling**  
TECHNOLOGY®

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Desmin (D93F5) XP® Rabbit mAb	5332	20 µl	53 kDa	Rabbit IgG
Keratin 17 (D73C7) Rabbit mAb	4543	20 µl	48 kDa	Rabbit IgG
Pan-Keratin (C11) Mouse mAb	4545	20 µl	46-58 kDa	Mouse IgG1
β-Tubulin (9F3) Rabbit mAb	2128	20 µl	55 kDa	Rabbit IgG
Vimentin (D21H3) XP® Rabbit mAb	5741	20 µl	57 kDa	Rabbit IgG
β-Actin (D6A8) Rabbit mAb	8457	20 µl	45 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat
Anti-mouse IgG, HRP-linked Antibody	7076	100 µl		Horse

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

### Description

The Cytoskeletal Marker Antibody Sampler Kit provides an economical means to evaluate the presence and status of select cytoskeleton associated proteins. The kit provides enough primary antibodies to perform two western blots per primary antibody.

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Background

The cytoskeleton consists of three different types of cytosolic fibers: microtubules, microfilaments (actin) and intermediate filaments. Actin, a ubiquitous eukaryotic protein, is the major component of the cytoskeleton. At least six isoforms are known in mammals. Nonmuscle β- and γ-actin, also known as cytoplasmic actin, are predominantly expressed in nonmuscle cells, controlling cell structure and motility (1). Major types of intermediate filaments are distinguished in part by the tissue in which they are expressed, for example; cytokeratins (epithelial cells), vimentin (mesenchyme origin), and desmin (skeletal, visceral and certain vascular smooth muscle cells) (2). Keratin heterodimers composed of an acidic keratin (or type I keratin, keratins 9 to 23) and a basic keratin (or type II keratin, keratins 1 to 8) assemble to form intermediate filaments (3). Research studies have demonstrated that vimentin is present in sarcomas, but not carcinomas, and its expression is examined relative to other markers in order to distinguish between the two forms of neoplasm (4). Desmin is a myogenic marker expressed in early development that forms a network of filaments that extends across the myofibril and surrounds Z discs (5). α/β-tubulin heterodimers form the tubulin subunit that comprises the microtubule building block (6).

### Background References

1. Herman, I.M. (1993) *Curr Opin Cell Biol* 5, 48-55.
2. Eng, L.F. et al. (2000) *Neurochem Res* 25, 1439-51.
3. Moll, R. et al. (1982) *Cell* 31, 11-24.
4. Leader, M. et al. (1987) *Histopathology* 11, 63-72.
5. Li, Z. et al. (1996) *Dev Biol* 175, 362-6.
6. Westermann, S. and Weber, K. (2003) *Nat Rev Mol Cell Biol* 4, 938-47.

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