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Senescence Marker Antibody Sampler Kit

#56062



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New 10/18

For Research Use Only. Not For Use In Diagnostic Procedures.

Products Included	Product #	Quantity	Mol. Wt.	Isotype
p16 INK4A (D3W8G) Rabbit mAb	92803	20 µl	16 kDa	Rabbit IgG
p21 Waf1/Cip1 (12D1) Rabbit mAb	2947	20 µl	21 kDa	Rabbit IgG
Phospho-Histone H2A.X (Ser139) (20E3) Rabbit mAb	9718	20 µl	15 kDa	Rabbit IgG
Lamin B1 (D9V6H) Rabbit mAb	13435	20 µl	45, 68 kDa	Rabbit IgG
HMGB1 (D3E5) Rabbit mAb	6893	20 µl	29 kDa	Rabbit IgG
IL-6 (D3K2N) Rabbit mAb	12153	20 µl	21-28 kDa	Rabbit IgG
TNF-α (D5G9) Rabbit mAb	6945	20 µl	18, 25 kDa	Rabbit IgG
MMP3 (D7F5B) Rabbit mAb	14351	20 µl	60 kDa	Rabbit IgG
Anti-Rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

See www.cellsignal.com for individual component applications, species cross-reactivity, dilutions and additional application protocols.

Description: The Senescence Marker Antibody Sampler Kit provides an economical means of detecting multiple markers of cellular senescence. The kit includes enough antibody to perform two western blot experiments with each primary antibody.

Background: Senescence is characterized by stable stress-induced proliferative arrest and resistance to mitogenic stimuli, as well as the secretion of proteins such as cytokines, growth factors and proteases. These secreted proteins comprise the senescence-associated secretory phenotype (SASP). Senescent cells are thought to accumulate as an organism ages, and contribute to age-related diseases, including cancer, through promotion of inflammation and disruption of normal cellular function (1,2). Because there is no single biomarker that can be used to definitively identify senescent cells, researchers must rely on a collection of biomarkers commonly associated with senescence. The Senescence Marker Antibody Sampler Kit provides a collection of antibodies to commonly used biomarkers of senescence-associated cell cycle arrest (p16 INK4A, p21 Waf1/Cip1), senescence-associated DNA damage (gamma-Histone H2A.X), and the SASP (HMGB1, IL-6, TNF-alpha, MMP3). The kit also includes an antibody to Lamin B1, which is frequently reduced in senescent cells.

Specificity/Sensitivity: Each antibody in the Senescence Marker Antibody Sampler Kit detects endogenous levels of its target protein.

Source/Purification: Monoclonal antibodies are produced by immunizing rabbits with synthetic peptides corresponding to residues surrounding Ala34 of human p16 INK4A protein, residues near the carboxy-terminus of human p21, residues surrounding Ser139 of human histone H2A.X protein, residues surrounding Lys415 of human lamin B1 protein, residues surrounding Ala137 of human HMGB1 protein, recombinant human IL-6 protein, recombinant human TNF-α protein, and residues surrounding Ser417 of human MMP3 protein.

Background References:

- (1) Tchkonja, T. et al. (2013) *J Clin Invest* 123, 966-72.
- (2) Sun, Y. et al. (2018) *Trends Mol Med* 24, 871-885.

U.S. Patent No. 5,675,063

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Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA—Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.