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-20°C

#78551

Mouse Reactive Senescence Marker Antibody Sampler Kit



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
p16 INK4A (E5F3Y) Rabbit mAb	29271	20 µL	16 kDa	Rabbit IgG
p21 Waf1/Cip1 (E2R7A) Rabbit mAb	37543	20 µL	21 kDa	Rabbit IgG
Phospho-Histone H2A.X (Ser139) (20E3) Rabbit mAb	9718	20 µL	15 kDa	Rabbit IgG
Lamin B1 (E6M5T) Rabbit mAb	17416	20 µL	45, 68 kDa	Rabbit IgG
HMGB1 (D3E5) Rabbit mAb	6893	20 µL	29 kDa	Rabbit IgG
IL-6 (D5W4V) XP® Rabbit mAb	12912	20 µL	24 kDa	Rabbit IgG
TNF-α (D2D4) XP® Rabbit mAb	11948	20 µL	17, 25, 28 kDa	Rabbit IgG
MMP-2 (D2O4T) Rabbit mAb	87809	20 µL	64, 72 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 Mouse Reactive Senescence Marker Antibody Sampler Kit provides an economical means of detecting multiple markers of cellular senescence in mouse samples. The kit includes enough antibodies 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 (3). The Mouse Reactive 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-α, MMP2). The kit also includes an antibody to lamin B1, which is frequently reduced in senescent cells.

Specificity/Sensitivity: Each antibody in the Mouse Reactive Senescence Marker Antibody Sampler Kit detects endogenous levels of its target protein. Phospho-Histone H2A.X (Ser139) (20E3) Rabbit mAb detects endogenous levels of H2A.X only when phosphorylated at Ser139.

Source/Purification: Monoclonal antibodies are produced by immunizing animals with synthetic peptides corresponding to residues surrounding Pro67 of mouse p16 INK4A protein, Arg455 of human lamin B1 protein, Ala137 of human HMGB1 protein, Pro117 of human MMP-2 protein, a synthetic phosphopeptide corresponding to residues surrounding Ser139 of human H2A.X protein, or recombinant proteins specific to human p21 Waf1/Cip1 protein or mouse TNF-α protein.

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 antibodies.

Please visit www.cellsignal.com for validation data and a complete listing of recommended companion products.

Background References:

- (1) Tchkonina, T. et al. (2013) *J Clin Invest* 123, 966-72.
- (2) Sun, Y. et al. (2018) *Trends Mol Med* 24, 871-885.
- (3) Gorgoulis, V. et al. (2019) *Cell* 179, 813-827.

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