

Store at
-20°C

Mediator Complex Antibody Sampler Kit

#43698



Support: +1-978-867-2388 (U.S.)
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New 02/21

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

Products Included	Product #	Quantity	Mol. Wt.	Isotype/Source
MED1 Antibody	51613	20 µl	220 kDa	Rabbit
MED12 (D9K5J) Rabbit mAb	14360	20 µl	240 kDa	Rabbit IgG
MED26 (D4B1X) Rabbit mAb	14950	20 µl	70 kDa	Rabbit IgG
CDK8 (D6M3J) Rabbit mAb	17395	20 µl	53 kDa	Rabbit IgG
Cyclin C (E6V4Z) Rabbit mAb	68179	20 µl	30 kDa	Rabbit IgG
Rpb1 NTD (D8L4Y) Rabbit mAb	14958	20 µl	250 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 Mediator Complex Antibody Sampler Kit provides an economical means of evaluating total levels of Mediator Complex proteins. The kit includes enough antibodies to perform two western blot experiments with each primary antibody.

Background: The mammalian Mediator Complex is a multi-subunit protein complex that acts to relay signals from transcription factors to RNA polymerase II (Pol II) and the basal transcription machinery. In other words, Mediator acts as a centralized hub or integrator for transcriptional regulation (reviewed in 1,2). Multiple studies have shown that Mediator functions include epigenetic regulation, transcriptional elongation, transcription termination, mRNA processing, noncoding RNA activation, and super enhancer formation. Through these functions, Mediator contributes to the regulation of many biological processes, including insulin signaling (3), NF-κB-dependent signaling (4), stem cell pluripotency and self renewal (5,6), and proliferation of colon cancer cells (7,8). The Mediator Complex consists of 31 protein subunits and can be divided into four distinct modules: the head, middle, tail, and CDK8 kinase module. The CDK8 kinase module contains the CDK8, cyclin C, MED12, and MED13 subunits and is thought to act as a molecular switch, phosphorylating the C-terminal domain (CTD) of Rpb1, the large subunit of RNA polymerase II, to inhibit Pol II recruitment and transcription initiation (9,10).

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

Source/Purification: Monoclonal antibodies are produced by immunizing animals with synthetic peptides corresponding to residues surrounding Gly1813 of human MED12 protein, Pro120 of human MED26 protein, Pro455 of human CDK8 protein, Pro263 of human cyclin C protein, and Glu613 of human Rpb1 protein. Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His591 of human MED1 protein. Polyclonal antibodies are purified by protein A and peptide affinity chromatography.

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) Malik, S. and Roeder, R.G. (2005) *Trends Biochem Sci* 30, 256-63.
- (2) Soutourina, J. (2018) *Nat Rev Mol Cell Biol* 19, 262-274.
- (3) Wang, W. et al. (2009) *Dev Cell* 16, 764-71.
- (4) van Essen, D. et al. (2009) *PLoS Biol* 7, e73.
- (5) Tutter, A.V. et al. (2009) *J Biol Chem* 284, 3709-18.
- (6) Varelas, X. et al. (2008) *Nat Cell Biol* 10, 837-48.
- (7) Firestein, R. et al. (2008) *Nature* 455, 547-51.
- (8) Morris, E.J. et al. (2008) *Nature* 455, 552-6.
- (9) Knuesel, M.T. et al. (2009) *Mol Cell Biol* 29, 650-61.
- (10) Knuesel, M.T. et al. (2009) *Genes Dev* 23, 439-51.

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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.