

#13421 Store at -20°C

SSRP1 (E1Y8D) Rabbit mAb**Cell Signaling**
TECHNOLOGY®**Orders:** 877-616-CELL (2355)
orders@cellsignal.com**Support:** 877-678-TECH (8324)**Web:** info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, ChIP	H M R Mk	Endogenous	81	Rabbit IgG	#Q08945	6749

Product Usage Information

For optimal ChIP results, use 10 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application

Western Blotting
Chromatin IP

Dilution

1:1000
1:50

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.

Specificity / Sensitivity

SSRP1 (E1Y8D) Rabbit mAb recognizes endogenous levels of total SSRP1 protein. This antibody also cross-reacts with protein of unknown origin at 140 kDa in some cell lines.

Species predicted to react based on 100% sequence homology:

Chicken

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val145 of human SSRP1 protein.

Background

Suppressor of Ty-16 (SPT16) and structure-specific recognition protein-1 (SSRP1) are subunits of the facilitates chromatin transcription (FACT) complex that is essential for transcription elongation (1,2). FACT facilitates RNA polymerase-dependent transcription of chromatin templates by destabilizing the nucleosomes within the open reading frames of active genes (3-5). FACT destabilizes the nucleosomes, which would otherwise act as barriers to RNA polymerase transcription activity, by disrupting histone-histone and histone-DNA contacts that lead to the eviction of the histone H2A-H2B dimer (2,3,6). FACT may also function as a histone chaperone to reassemble nucleosomes after RNA polymerase passage (7). In addition to transcription, FACT activity has been shown to have a role in DNA replication in yeast and in DNA repair by contributing to the activation of p53 by CK2 and by facilitating histone H2AX-H2B exchange upon DNA damage (8,9).

Background References

1. Winkler, D.D. and Luger, K. (2011) *J Biol Chem* 286, 18369-74.
2. Orphanides, G. et al. (1999) *Nature* 400, 284-8.
3. Orphanides, G. et al. (1998) *Cell* 92, 105-16.
4. Birch, J.L. et al. (2009) *EMBO J* 28, 854-65.
5. Orphanides, G. and Reinberg, D. (2000) *Nature* 407, 471-5.
6. Keller, D.M. and Lu, H. (2002) *J Biol Chem* 277, 50206-13.
7. Belotserkovskaya, R. et al. (2003) *Science* 301, 1090-3.
8. Schlesinger, M.B. and Formosa, T. (2000) *Genetics* 155, 1593-606.
9. Heo, K. et al. (2008) *Mol Cell* 30, 86-97.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **ChIP:** Chromatin IP

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

SimpleChIP is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.