

Purified anti-SSRP1 Antibody

Catalog# / Size	609701 / 25 µg 609702 / 100 µg
Clone	10D1
Regulatory Status	RUO
Other Names	Structure specific recognition protein 1 (SSRP1), Facilitates Chromatin Transcription 80 kD subunit, FACTp80, Recombination signal sequence recognition protein
Isotype	Mouse IgG2b, κ
Description	SSRP1 is a nuclear protein and a component of the FACT complex (facilitates chromatin transcription). The FACT complex is composed of the SUPT16H (FACT140) and the SSRP1 FACTp80 proteins. This complex interacts with nucleosomes and histone H2A/H2B dimers to promote nucleosome disassembly and allow transcription elongation. This protein interacts with dsDNA. The SSRP1 protein has been shown to be modified by cisplatin and may protect DNA from repair and block DNA replication. The 10D1 monoclonal antibody recognizes the human SSRP1 protein and has been shown to be useful for Western blotting.

Product Details

Verified Reactivity	Human, Mouse
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant (partial) (308-524aa)
Formulation	This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide at 0.5 mg/ml.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	Upon receipt, store undiluted between 2°C and 8°C.
Application	WB - Quality tested ICC, ChIP - Verified IP - Reported in the literature, not verified in house
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . Western blotting, suggested working dilution(s): Use 5 µg per 5 ml antibody dilution buffer for each mini-gel. For ChIP applications, the suggested dilution is 1:50-1:200 by volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	10D1 displayed a stronger affinity for SSRP1 than BioLegend clone 3E4 when tested for western blot application.
Application References	<ol style="list-style-type: none"> 1. Tan BC, <i>et al.</i> 2006. <i>EMBO</i> 25:3975. (ChIP) 2. Carvalho S, <i>et al.</i> 2013. <i>Nucleic Acids Res.</i> 41:2881. PubMed 3. Tan BC, <i>et al.</i> 2004. <i>J. Biol. Chem.</i> 279:9321. (Immunogen) 4. Lolis AA, <i>et al.</i> 2013. <i>J Biol Chem.</i> 288:7676. PubMed 5. Aida M, <i>et al.</i> 2013. <i>PNAS.</i> 110:7784. PubMed 6. Dermawan JK, <i>et al.</i> 2014. <i>Mol Cancer Ther.</i> 13:2203. PubMed 7. Shakya A, <i>et al.</i> 2015. <i>Mol Cell Biol.</i> 35:1014. PubMed
Product Citations	<ol style="list-style-type: none"> 1. Srinivasan R, <i>et al.</i> 2020. <i>Sci Adv.</i> 6:eaaz9115. PubMed 2. Dermawan J, <i>et al.</i> 2016. <i>Cancer Res.</i> 76: 2432-2442. PubMed 3. Fleyshman D, <i>et al.</i> 2017. <i>Oncotarget.</i> 8:20525. PubMed 4. Isa NF, <i>et al.</i> 2021. <i>Vaccines (Basel).</i> 9:. PubMed 5. Safina A, <i>et al.</i> 2017. <i>Nucleic Acids Res.</i> 10.1093/nar/gkw1366. PubMed

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RRID AB_315730 (BioLegend Cat. No. 609701)
 AB_315731 (BioLegend Cat. No. 609702)

Antigen Details

Structure	SSRP family, HMG box domain; 81 kD
Distribution	Nuclear
Function	Interacts with nucleosomes and histone H2A/H2B dimers to promote nucleosome disassembly and allow transcription elongation, binds to dsDNA. Modified by cisplatin, may protect DNA from repair and block DNA replication
Interaction	Component of FACT ATP-dependent chromatin remodeling complex, SUPT16H/Cdc68 in FACT complex, H2A/H2B dimers
Biology Area	Cell Biology, Chromatin Remodeling/Epigenetics, DNA Repair/Replication, Transcription Factors
Antigen References	<ol style="list-style-type: none"> 1. LeRoy G, <i>et al.</i> 1998. <i>Science</i> 282:1836. 2. Orphanides G, <i>et al.</i> 1998. <i>Cell</i> 92:105. 3. Orphanides G, <i>et al.</i> 1999. <i>Nature</i> 400:284.
Gene ID	6749

Related Protocols

[BioLegend's Tools for Chromatin Immunoprecipitation \(ChIP\) Assays - Video](#)

[Chromatin Immunoprecipitation \(ChIP\) Assay Protocol](#)

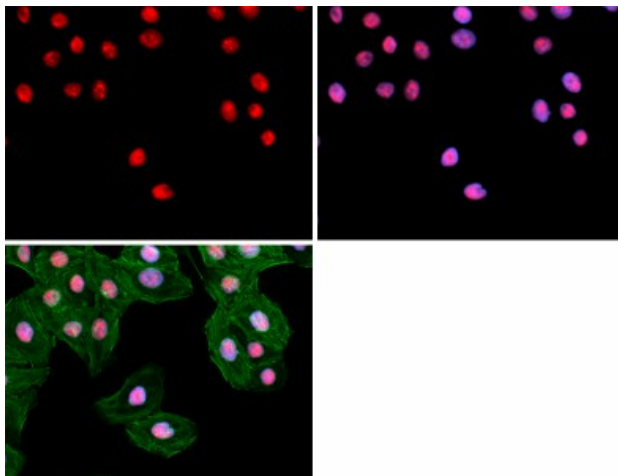
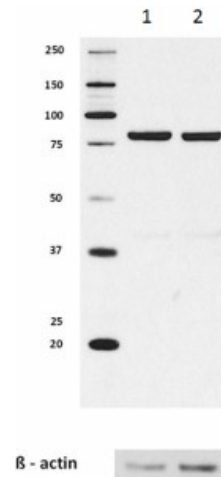
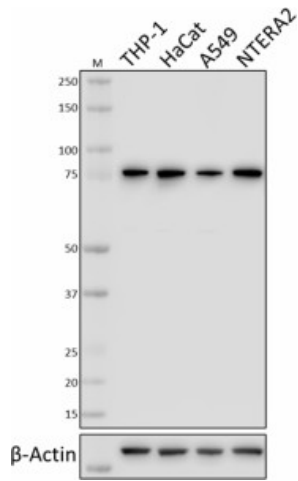
[Immunocytochemistry Staining Protocol](#)

[Western Blotting Protocol](#)

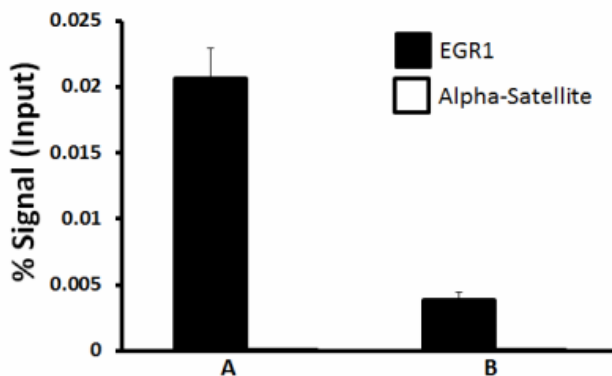
Other Formats

Purified anti-SSRP1

Product Data



Go-ChIP-Grade™ Purified anti-SSRP1 Antibody (10D1)



Total cell lysates (15 µg total protein) from THP-1, HaCat, Alexa Fluor® 594 and NTERA2 cells were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to a nitrocellulose membrane, and probed with 1.0 µg/mL of purified anti-SSRP1 antibody, clone 10D1, overnight at 4°C. Proteins were visualized by chemiluminescence detection using HRP goat anti-mouse IgG antibody (Cat. No. 405306) at a 1:3000 dilution. Direct-Blot™ HRP anti-β-actin antibody (Cat. No. 664804) was used as a loading control at a 1:10000 dilution (lower). Lane M: Molecular Weight marker.

Total lysates (15 µg protein) from HeLa (lane 1) and NIH3T3 cells (lane 2) were resolved by electrophoresis (4-12% Bis-Tris gel), transferred to nitrocellulose, and probed with 1:500 diluted (1 µg/mL Purified anti-SSRP1 Antibody, clone 10D1 (upper) or 1:3000 diluted Purified anti-β-actin Antibody, clone Poly6221 (lower). Proteins were visualized by chemiluminescence detection using a 1:3000 diluted goat anti-mouse-IgG secondary antibody conjugated to HRP for the anti-SSRP1 Antibody, and a donkey anti-rabbit IgG Antibody conjugated to HRP for anti-β-actin Antibody.

HeLa cells were stained with purified anti-SSRP-1 (10D1) antibody, followed by staining with DyLight™ 594 conjugated goat anti-mouse IgG (red) antibody. Actin filaments were labeled in green. Nuclei were stained with DAPI (blue).

Chromatin Immunoprecipitations (ChIP) were performed with cross-linked chromatin samples from 4×10^6 HeLa cells (starved overnight then treated with 10% FCS) with either A) 1:50 dilution of Go-ChIP-Grade™ Purified anti-SSRP1 Antibody (clone 10D1, Cat. No. 609709) or B) equal amount of Purified Mouse IgG2b, κ isotype control antibody (clone MPC-11, Cat. No. 400301) by using Go-ChIP-Grade™ Protein G Enzymatic Kit (Cat. No. 699904). The enriched DNA was purified and quantified by real-time qPCR using primers targeting human EGR1 gene region or α-Satellite repeats. The amount of immunoprecipitated DNA in each sample is represented as signal relative to total amount of input chromatin.

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