

PHRF1 (E-18): sc-168951

BACKGROUND

PHRF1 (PHD and RING finger domain-containing protein 1), also known as RNF221, KIAA1542 or CTD binding SR like protein rA9, which shares significant similarity with the rA9 protein, contains a ser/arg-rich domain and binds the C-terminal domain of the RNA polymerase II large subunit. PHRF1 is a 1,649 amino acid protein existing as 3 alternatively spliced isoforms and is ubiquitously expressed. High levels of PHRF1 are suggested to be present in adult and fetal liver, ovary, brain, spleen, lung, skeletal muscle, heart and pancreas with modest expression in kidney. PHRF1 interacts with Pol II (via the C-terminal domain) and is phosphorylated upon DNA damage, likely by Atm or ATR. Known for immune function, PHRF1 allelic variations are established risk factors for human SLE (systemic lupus erythematosus).

REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611780. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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4. Graham, R.R., et al. 2009. Review of recent genome-wide association scans in lupus. *J. Intern. Med.* 265: 680-688.
5. Gateva, V., et al. 2009. A large-scale replication study identifies TNIP1, PRDM1, JAZF1, UHRF1BP1 and IL-10 as risk loci for systemic lupus erythematosus. *Nat. Genet.* 41: 1228-1233.
6. Delgado-Vega, A.M., et al. 2010. Genetic associations in type I interferon related pathways with autoimmunity. *Arthritis Res. Ther.* 12: S2.
7. Salloum, R., et al. 2010. Genetic variation at the IRF7/PHRF1 locus is associated with autoantibody profile and serum interferon- α activity in lupus patients. *Arthritis Rheum.* 62: 553-561.
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CHROMOSOMAL LOCATION

Genetic locus: PHRF1 (human) mapping to 11p15.5; Phrf1 (mouse) mapping to 7 F5.

SOURCE

PHRF1 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PHRF1 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168951 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PHRF1 (E-18) is recommended for detection of PHRF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PHRF1 (E-18) is also recommended for detection of PHRF1 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for PHRF1 siRNA (h): sc-96330, PHRF1 siRNA (m): sc-140720, PHRF1 shRNA Plasmid (h): sc-96330-SH, PHRF1 shRNA Plasmid (m): sc-140720-SH, PHRF1 shRNA (h) Lentiviral Particles: sc-96330-V and PHRF1 shRNA (m) Lentiviral Particles: sc-140720-V.

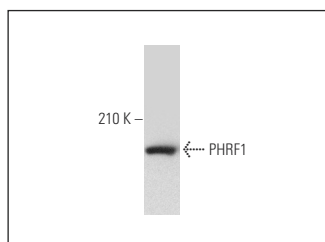
Molecular Weight of PHRF1: 179 kDa.

Positive Controls: K-562 nuclear extract: sc-2130.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PHRF1 (E-18): sc-168951. Western blot analysis of PHRF1 expression in K-562 nuclear extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures.