PRDM1/Blimp-1

CONTACT INFORMATION: Monoclonal Antibodies Unit. Centro Nacional de Investigaciones Oncológicas
STATUS: Validated
TYPE: mouse anti human
CLONE NAME: ROS195
PROTEIN: Human full length PRDM1
ANTIGEN USED: GST-PRDM1 recombinant protein
FUSION PARTNER: NS1/Ag4-1 (NS1) cells
ISOTYPE: IgG1
SPECIES REACTIVITY: human and mouse
PREPARATION AND STORAGE: Aliquot and store at 4C. Do not freeze
APP RECOMMENDED: IHQ-paraffin, IF, WB, IP, Flow cytometry
APP NO TESTED: IHQ-frozen

DESCRIPTION
B lymphocyte-induced maturation protein-1 (Blimp-1) is a 98-kDa protein containing five Kruppel-type zinc fingers that confer sequence specific DNA binding. Based on studies in B cell lines, Blimp-1 has been postulated to be a master regulator of terminal B cell differentiation. In the BCL-1 lymphoma model of differentiation from a mature B cell to a plasma cell, ectopic expression of Blimp-1 is sufficient to cause terminal differentiation evidenced by loss of surface Ig, IgM secretion, expression of syndecan-1 on the cell surface, and cessation of cell division.

PUBLICATION DESCRIBING ANTIBODY CHARACTERIZATION/VALIDATION

REFERENCES


**APPLICATIONS**

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**ROS195 monoclonal antibody in transfected cells**

Nuclear staining on frozen cytospin preparations of transfected HEK293T/PRDM1 cells using antibody ROS195.

**PRDM-1/Blimp-1 (ROS195) IHQ in human paraffin sections.**

In tonsil PRDM1 protein is strongly expressed by plasma cells present in germinal centres, and in subepithelial areas.
Triple immunostaining of PRDM1/Blimp-1 (ROS195) in reactive tonsil.
PRDM1/Blimp-1 nuclear protein (blue) is expressed in plasma cells (VS38c, plasma cell marker, red) but absent in CD20 positive (B lymphocytes, green).
### Western Blotting

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### Immunoprecipitation

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<th>muscle</th>
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<th>97kDa</th>
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**Biochemical characterization of ROS195 monoclonal antibody.**

Western blot analysis of PRDM1 expression in total protein extracts from lymphoma cell lines and human tonsil. Tubulin was used as loading control.

- Lane 1 L-540 cell line (100ug) (+)
- Lane 2 L-428 cell line (100ug) (+)
- Lane 3 HDLM-2 cell line (100ug) (+)
- Lane 4 KM-H2 cell line (100ug) (-)
- Lane 5 L-1236 cell line (100ug) (-)
Lane 6 Human tonsil (100ug) (+)
Lane 7 RPMI-8226 cell line (100ug) (+)
Lane 8 Karpas-422 cell line (100ug) (+)
Lane 9 PBL (EBV) cell line (100ug) (-)
Lane 10 LP-1 cell line (100ug) (+)

Tubulin was used as loading control.
**PRDM1/Blimp-1 (ROS195) immunoprecipitation.**

Immunoprecipitation of protein extracts from normal tonsil with the anti-PRDM1 monoclonal antibody (ROS195 lane) and the specific polyclonal antibody (pAb lane) followed by a Western blotting with ROS195 antibody, shows a ~97 kDa band.
**Monoclonal Antibodies Catalogue**

<table>
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<th>Recommended</th>
<th>ROS</th>
<th>50ul supernatant/one million cells/tube</th>
<th>OPM2 cell line</th>
<th>MOLT4 cell line</th>
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ROS mAb by Flow cytometry
RED: Negative cell line MOLT4 (T cell leukemia)
BLUE: Positive cell line OPM2 (multiple myeloma)

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<th>OTHERS</th>
<th>Title</th>
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<td>Epitope recognise by ROS mAb</td>
<td>ROS) monoclonal antibody recognize site between amino acids 176 and 307 and is able to recognise the two blimp-1 isoforms.</td>
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Epitope recognised by ROS mAb

ROS monoclonal antibody recognize site between amino acids 176 and 307 and is recognising the two blimp-1 isoforms.

Work done by Dr K. Wright (Lee Moffitt Cancer Center)