10320 Camino Santa Fe, Suite G
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SPI1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1739a

Specification

SPI1 Antibody - Product Information

Application	**E, WB, FC**
Primary Accession	P17947
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**42kDa KDa**

Description
This gene encodes an ETS-domain transcription factor that activates gene expression during myeloid and B-lymphoid cell development. The nuclear protein binds to a purine-rich sequence known as the PU-box found near the promoters of target genes, and regulates their expression in coordination with other transcription factors and cofactors. The protein can also regulate alternative splicing of target genes. Multiple transcript variants encoding different isoforms have been found for this gene.

Immunogen
Purified recombinant fragment of human SPI1 (AA: 124-271) expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

SPI1 Antibody - Additional Information

Gene ID 6688

Other Names
Transcription factor PU.1, 31 kDa-transforming protein, SPI1

Dilution
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SPI1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SPI1 Antibody - Protein Information

Name SPI1

Function
Pioneer transcription factor, which controls hematopoietic cell fate by decompacting stem cell heterochromatin and allowing other transcription factors to enter otherwise inaccessible genomic sites. Once in open chromatin, can directly control gene expression by binding genetic regulatory elements and can also more broadly influence transcription by recruiting transcription factors, such as interferon regulatory factors (IRFs), to otherwise inaccessible genomic regions (PubMed:23658224, PubMed:33951726). Transcriptionally activates genes important for myeloid and lymphoid lineages, such as CSF1R (By similarity). Transcriptional activation from certain promoters, possibly containing low affinity binding sites, is achieved cooperatively with other transcription factors. FCER1A transactivation is achieved in cooperation with GATA1 (By similarity). May be particularly important for the pro- to pre-B cell transition (PubMed:33951726). Binds (via the ETS domain) onto the purine-rich DNA core sequence 5'-GAGGAA-3', also known as the PU-box (PubMed:33951726). In vitro can bind RNA and interfere with pre-mRNA splicing (By similarity).

Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00237, ECO:0000269|PubMed:33951726}

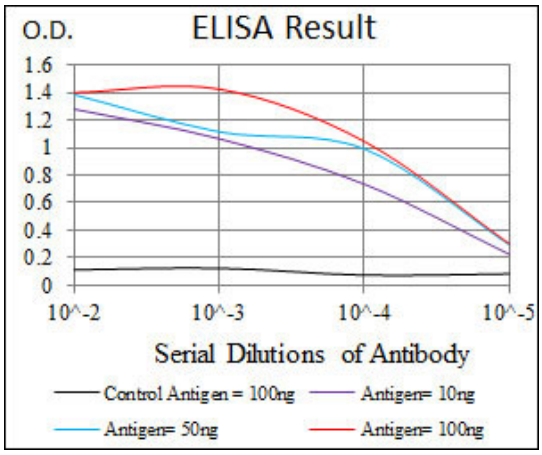
Tissue Location
In the bone marrow, concentrated in hematopoietic stem cell, lymphoid progenitor, myeloid lineage (granulocyte macrophage progenitors, classical dendritic cells, monocytes) and B-cell clusters Among B-cells, predominantly expressed in pre-B1 cells (PubMed:33951726). Expressed in germinal center B-cells (PubMed:23166356).

SPI1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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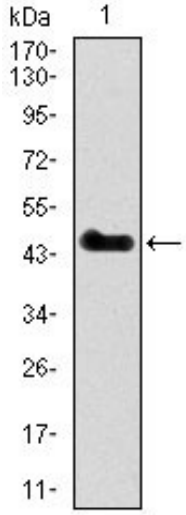


Figure 1: Western blot analysis using SPI1 mAb against human SPI1 recombinant protein. (Expected MW is 46.9 kDa)

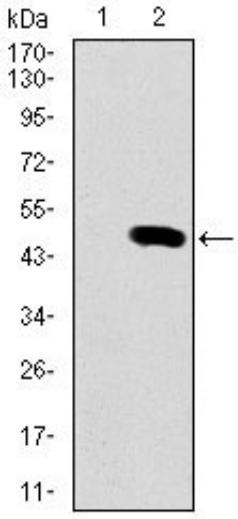


Figure 2: Western blot analysis using SPI1 mAb against HEK293 (1) and SPI1 (AA: 124-271)-hIgGFc transfected HEK293 (2) cell lysate.

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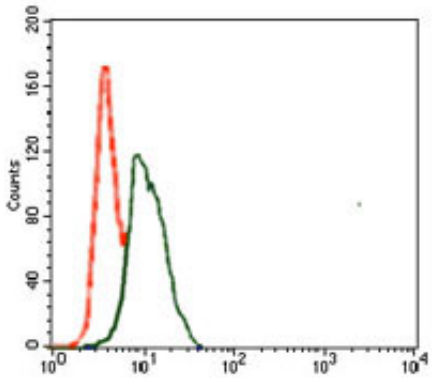


Figure 3: Flow cytometric analysis of HeLa cells using SPI1 mouse mAb (green) and negative control (red).

SPI1 Antibody - References

1.J Biol Chem. 2011 Jan 21;286(3):1675-82.2.Leuk Res. 2010 Dec;34(12):1636-46.