10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SPI1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14850B

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	P17947
Other Accession	Q6BDS1, Q6PKU1, P17433, NP_003111.2, NP_001074016.1
Reactivity	Human
Predicted	Mouse, Pig, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34932
Calculated MW	31083
Antigen Region	217-246

Additional Information

Gene ID	6688
Other Names	Transcription factor PU1, 31 kDa-transforming protein, SPI1
Target/Specificity	This SPI1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 217-246 amino acids from the C-terminal region of human SPI1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SPI1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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).

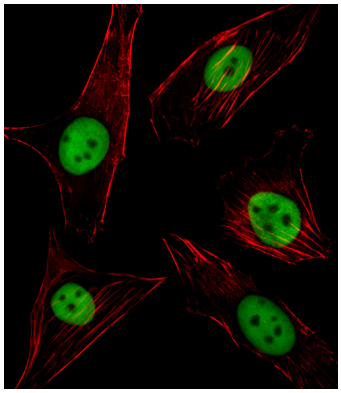
Background

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. [provided by RefSeq].

References

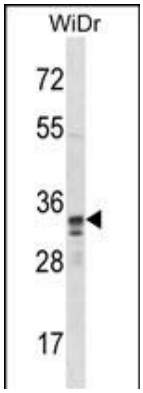
Rimmele, P., et al. Cancer Res. 70(17):6757-6766(2010)
Bonadies, N., et al. Oncogene 29(7):1062-1072(2010)
Bonadies, N., et al. Blood 115(2):331-334(2010)
Desai, S., et al. J. Immunol. 183(9):5778-5787(2009)
Burda, P., et al. Mol. Cancer Res. 7(10):1693-1703(2009)

Images

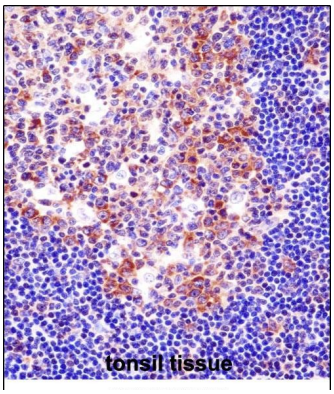


Fluorescent image of NIH/3T3 cell stained with SPI1 Antibody (C-term)(Cat#AP14850b/SA110831AS).NIH/3T3 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with SPI1 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). SPI1 immunoreactivity is localized to Nucleus significantly.

SPI1 Antibody (C-term) (Cat. #AP14850b) western blot



analysis in WiDr cell line lysates (35ug/lane).This demonstrates the SPI1 antibody detected the SPI1 protein (arrow).



SPI1 Antibody (C-term) (AP14850b)immunohistochemistry analysis in formalin fixed and paraffin embedded human tonsil tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of SPI1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.