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Goat Anti-PU.1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1885a

Specification

Goat Anti-PU.1 Antibody - Product Information

Application	**WB**
Primary Accession	P17947
Other Accession	NP_003111, 6688, 366126 (rat)
Reactivity	**Human**
Predicted	**Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**31083**

Goat Anti-PU.1 Antibody - Additional Information

Gene ID 6688

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

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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
Goat Anti-PU.1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-PU.1 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).

Goat Anti-PU.1 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

Goat Anti-PU.1 Antibody - Images

AF1885a (0.03 µg/ml) staining of DAUDI lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-PU.1 Antibody - 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.

Goat Anti-PU.1 Antibody - References

PU.1 is regulated by NF-kappaB through a novel binding site in a 17 kb upstream enhancer element. Bonadies N, et al. Oncogene, 2010 Feb 18. PMID 19966852.
Heterozygous deletion of the PU.1 locus in human AML. Bonadies N, et al. Blood, 2010 Jan 14. PMID 19890096.
PU.1 regulates positive regulatory domain I-binding factor 1/Blimp-1 transcription in lymphoma cells. Desai S, et al. J Immunol, 2009 Nov 1. PMID 19828640.
PU.1 activation relieves GATA-1-mediated repression of Cebpa and Cbfb during leukemia differentiation. Burda P, et al. Mol Cancer Res, 2009 Oct. PMID 19825991.
PU.1 induces apoptosis in myeloma cells through direct transactivation of TRAIL. Ueno S, et al. Oncogene, 2009 Nov 19. PMID 19749795.