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ID4 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9977a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P47928
Other Accession	Q06AV5, P41139
Reactivity	Human, Mouse
Predicted	Pig
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24654
Calculated MW	16622
Antigen Region	1-30

Additional Information

Gene ID	3400
Other Names	DNA-binding protein inhibitor ID-4, Class B basic helix-loop-helix protein 27, bHLHb27, Inhibitor of DNA binding 4, Inhibitor of differentiation 4, ID4, BHLHB27
Target/Specificity	This ID4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human ID4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~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	ID4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ID4

Synonyms	BHLHB27
Function	Transcriptional regulator (lacking a basic DNA binding domain) which negatively regulates the basic helix-loop-helix (bHLH) transcription factors by forming heterodimers and inhibiting their DNA binding and transcriptional activity. Implicated in regulating a variety of cellular processes, including cellular growth, senescence, differentiation, apoptosis, angiogenesis, and neoplastic transformation (By similarity).
Cellular Location	Nucleus.

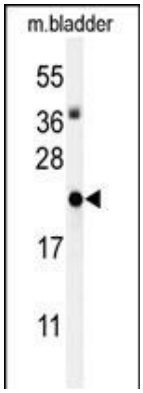
Background

ID4 is transcription factors containing a basic helix-loop-helix (bHLH) motif regulate expression of tissue-specific genes in a number of mammalian and insect systems. DNA-binding activity of the bHLH proteins is dependent on formation of homo- and/or heterodimers. Dominant-negative HLH proteins encoded by Id-related genes, such as ID4, also contain the HLH-dimerization domain but lack the DNA-binding basic domain. Consequently, Id proteins inhibit binding to DNA and transcriptional transactivation by heterodimerization with bHLH proteins

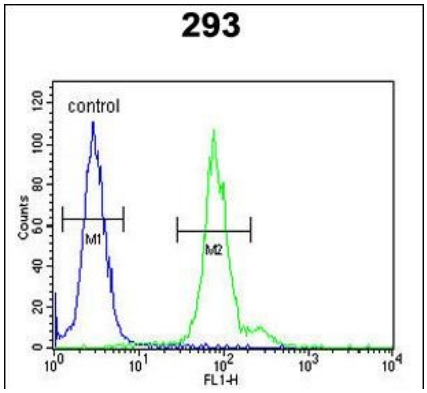
References

Fontemaggi, G., et al. Nat. Struct. Mol. Biol. 16(10):1086-1093(2009) Uhm, K.O., et al. J. Korean Med. Sci. 24(3):493-497(2009)

Images



Western blot analysis of ID4 Antibody (N-term) (Cat. #AP9977a) in mouse bladder tissue lysates (35ug/lane). ID4 (arrow) was detected using the purified Pab.



ID4 Antibody (N-term) (Cat. #AP9977a) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.