

**ID4 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP9977a****Specification**

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**ID4 Antibody (N-term) - Product Information**

Application	FC, WB, IHC-P,E
Primary Accession	<a href="#">P47928</a>
Other Accession	<a href="#">Q06AV5</a> , <a href="#">P41139</a>
Reactivity	Human, Mouse
Predicted	Pig
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1-30

**ID4 Antibody (N-term) - 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**

FC~~1:10~50

WB~~1:1000

IHC-P~~1:50~100

**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.

**ID4 Antibody (N-term) - 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).

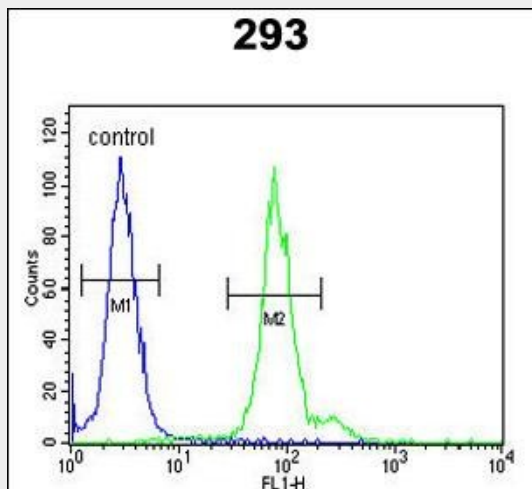
**Cellular Location**

Nucleus.

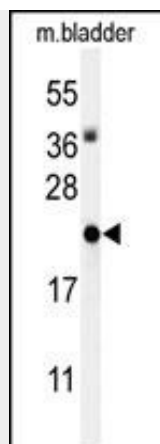
**ID4 Antibody (N-term) - Protocols**

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

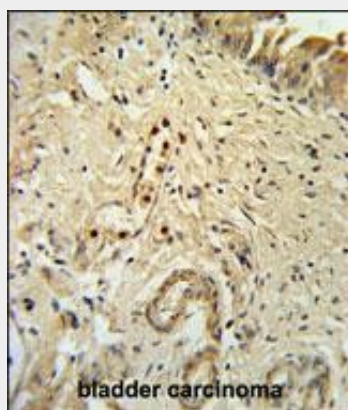
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**ID4 Antibody (N-term) - Images**

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



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) IHC analysis in formalin fixed and paraffin embedded bladder carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ID4 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **ID4 Antibody (N-term) - 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

#### **ID4 Antibody (N-term) - 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)