

Anti-ID2 Picoband Antibody

Catalog # ABO10075

Product Information

Application	WB
Primary Accession	Q02363
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for DNA-binding protein inhibitor ID-2(ID2) detection. Tested with WB in Human;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3398
Other Names	DNA-binding protein inhibitor ID-2, Class B basic helix-loop-helix protein 26, bHLHb26, Inhibitor of DNA binding 2, Inhibitor of differentiation 2, ID2, BHLHB26
Calculated MW	14917
Application Details	Western blot, 0.1-0.5 µg/ml, Rat, Human
Subcellular Localization	Cytoplasm . Nucleus .
Tissue Specificity	Highly expressed in early fetal tissues, including those of the central nervous system.
Source	Eukaryota
Protein Name	DNA-binding protein inhibitor ID-2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Na ₃ N.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ID2 (86-120aa VSLHHQRPGQNQASRTPLTTLNTDISILSLQASEF), identical to the related mouse sequence, and different from the related rat sequence by one amino acid.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.

Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
----------------	--

Protein Information

Name	ID2
Synonyms	BHLHB26
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. Inhibits skeletal muscle and cardiac myocyte differentiation. Regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-BMAL1 heterodimer. Restricts the CLOCK and BMAL1 localization to the cytoplasm. Plays a role in both the input and output pathways of the circadian clock: in the input component, is involved in modulating the magnitude of photic entrainment and in the output component, contributes to the regulation of a variety of liver clock-controlled genes involved in lipid metabolism.
Cellular Location	Cytoplasm {ECO:0000250 UniProtKB:P41136}. Nucleus {ECO:0000250 UniProtKB:P41136}
Tissue Location	Highly expressed in early fetal tissues, including those of the central nervous system

Background

DNA-binding protein inhibitor ID-2 is a protein that in humans is encoded by the ID2 gene. The protein encoded by this gene belongs to the inhibitor of DNA binding family, members of which are transcriptional regulators that contain a helix-loop-helix (HLH) domain but not a basic domain. Members of the inhibitor of DNA binding family inhibit the functions of basic helix-loop-helix transcription factors in a dominant-negative manner by suppressing their heterodimerization partners through the HLH domains. This protein may play a role in negatively regulating cell differentiation. A pseudogene of this gene is located on chromosome 3.

Images

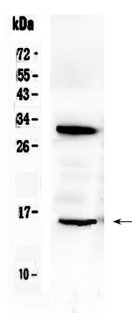


Figure 1. Western blot analysis of ID2 using anti- ID2 antibody (ABO10075). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- ID2 antigen affinity purified polyclonal antibody (Catalog # ABO10075) at 0.5 µg/mL overnight at 4 °C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP

secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for ID2 at approximately 15KD. The expected band size for ID2 is at 15KD.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.