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ID1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50188

Product Information

Application	IHC-F, IF, ICC, E
Primary Accession	P41134
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16133
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ID1
Epitope Specificity	51-155/155
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus.
SIMILARITY	Contains 1 bHLH (basic helix-loop-helix) domain.
SUBUNIT	Heterodimer with other HLH proteins. Interacts with COPS5.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	ID proteins contain a helix-loop-helix (HLH) motif and regulate tissue-specific transcription within several cell lineages. They do not bind DNA directly, but inhibit lineage commitment by binding basic helix-loop-helix (bHLH) transcription factors through their HLH motif. ID proteins contribute to cell growth, senescence, differentiation and angiogenesis. Id1 mRNA is highly expressed in heart, lung and kidney and has lower expression in brain and liver. Two transcript variants encoding different isoforms have been found for this gene.

Additional Information

Gene ID	3397
Other Names	DNA-binding protein inhibitor ID-1, Class B basic helix-loop-helix protein 24, bHLHb24, Inhibitor of DNA binding 1, Inhibitor of differentiation 1, ID1, BHLHB24, ID
Dilution	IHC-F=1:100-500,ICC=1:100,IF=1:200-800,Flow-Cyt=1ug/Test,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ID1
Synonyms	BHLHB24, ID
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 (By similarity).
Cellular Location	Cytoplasm. Nucleus.

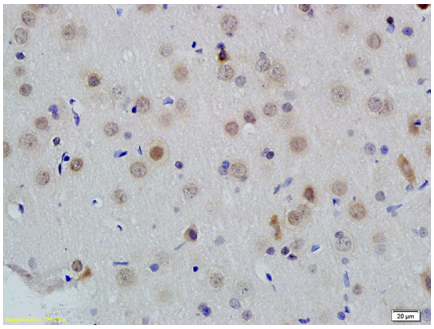
Background

ID (inhibitor of DNA binding) HLH proteins lack a basic DNA-binding domain but are able to form heterodimers with other HLH proteins, thereby inhibiting DNA binding.

References

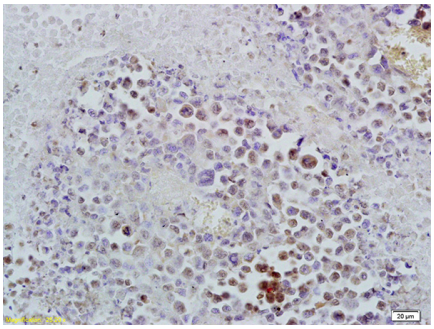
Deed R.W.,et al.Biochim. Biophys. Acta 1219:160-162(1994).
Hara E.,et al.J. Biol. Chem. 269:2139-2145(1994).
Zhu W.,et al.Brain Res. Mol. Brain Res. 30:312-326(1995).
Nehlin J.O.,et al.Biochem. Biophys. Res. Commun. 231:628-634(1997).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.

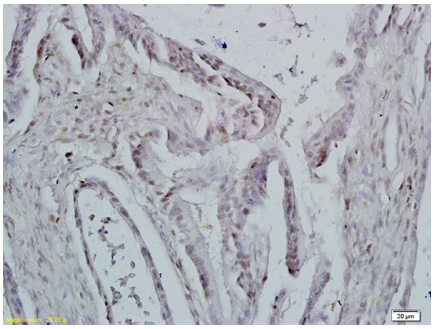
Images



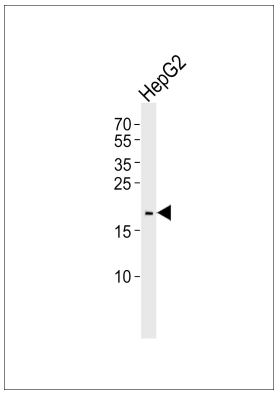
Formalin-fixed and paraffin embedded rat brain tissue labeled with Anti-ID1 Polyclonal Antibody, Unconjugated (AP50188) at 1:200 followed by conjugation to the secondary antibody and DAB staining

Formalin-fixed and paraffin embedded mouse lymphoma tissue labeled with Anti-ID1 Polyclonal Antibody, Unconjugated (AP50188) at 1:200 followed by conjugation to the secondary antibody and DAB staining





Formalin-fixed and paraffin embedded human colon carcinoma labeled with Anti-ID1 Polyclonal Antibody, Unconjugated (AP50188) at 1:200 followed by conjugation to the secondary antibody and DAB staining



Western blot analysis of lysate from HepG2 cell line,using ID1 Antibody (Center)(AP50188). AP50188 was diluted at 1:500. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.