



Rabbit Anti-ABH1 antibody

SL12565R

Product Name:	ABH1
Chinese Name:	ALKB蛋白抗体
Alias:	ABH; ABH1; alkB; AlkB, alkylation repair homolog 1 (E. coli); ALKB1_HUMAN; ALKBH; ALKBH1; Alkylated DNA repair protein alkB homolog 1; Alkylation repair homolog 1; Alkylation repair, alkB homolog; Alpha-ketoglutarate-dependent dioxygenase ABH1; DNA lyase ABH1; hABH.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	44kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ABH1/ALKB:1-100/389
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	ALKB protects DNA and RNA against damage from methylating compounds from the environment by directly reversing 1-methyladenine (1-meA) and 3-methylcytosine (3-meC) cytotoxic alkylation lesions in DNA and RNA. The enzymes act by oxidative demethylation, utilizing ferrous iron and alpha-ketoglutarate as cofactors, 2-oxoglutarate

as a co-substrate, and molecular oxygen as the oxidizing agent. Deficiencies in DNA and RNA repair in mammals are associated with cancer, neurological disease and developmental defects. ALKB plays a role in resistance to anti-cancer drugs which attempt to damage tumor DNA. Escherichia coli ALKB protein belongs to the superfamily of 2-oxoglutarate- and iron(II)-dependent oxygenases.

Function:

Dioxygenase that repairs alkylated single-stranded DNA and RNA containing 3-methylcytosine by oxidative demethylation. Requires molecular oxygen, alpha-ketoglutarate and iron. May have a role in placental trophoblast lineage differentiation (By similarity). Has DNA lyase activity and introduces double-stranded breaks at abasic sites. Cleaves both single-stranded DNA and double-stranded DNA at abasic sites, with the greatest activity towards double-stranded DNA with two abasic sites. DNA lyase activity does not require alpha-ketoglutarate and iron.

Subunit:

Monomer. Interacts with DNAJB6 (By similarity).

Subcellular Location:

Mitochondrion. Nucleus. Mainly localizes in euchromatin, largely excluded from heterochromatin and nucleoli.

Tissue Specificity:

Ubiquitous.

Similarity:

Belongs to the alkB family.
Contains 1 Fe₂OG dioxygenase domain.

SWISS:

Q13686

Gene ID:

8846

Database links:

[Entrez Gene: 8846](#)Human

[Entrez Gene: 211064](#)Mouse

[Omim: 605345](#)Human

[SwissProt: Q13686](#)Human

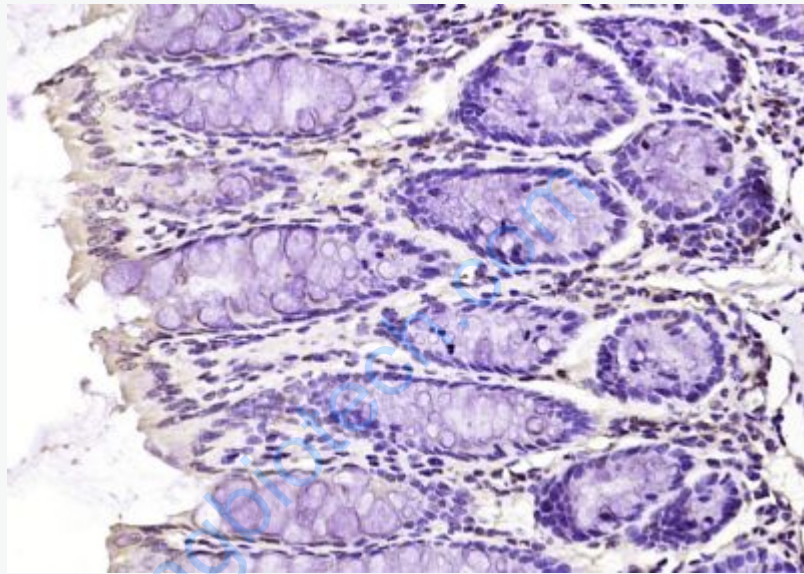
[SwissProt: P0CB42](#)Mouse

[Unigene: 94542](#)Human

[Unigene: 26840](#)Mouse

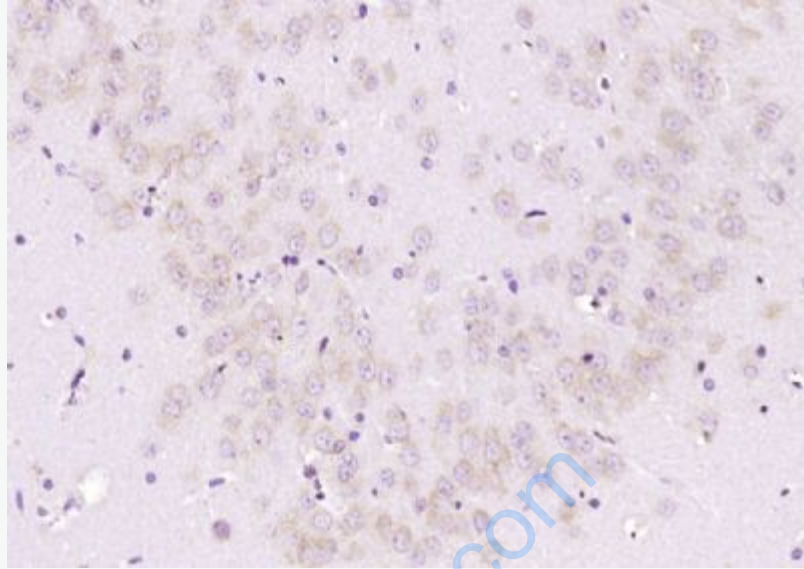
Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Paraformaldehyde-fixed, paraffin embedded (mouse colon); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ABH1) Polyclonal Antibody, Unconjugated (SL12565R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ABH1) Polyclonal Antibody, Unconjugated (SL12565R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.