

## Rabbit Anti-ABH1/AF350 Conjugated antibody

SL12565R-AF350

<b>Product Name</b>	Anti-ABH1/AF350
<b>Chinese Name</b>	AF350 标记的 ALKB 蛋白抗体
<b>Alias</b>	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.
<b>Research Area</b>	Tumour Neurobiology Epigenetics
<b>Immunogen Species</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>React Species</b>	Mouse,Rat(predicted:Human,Dog,Pig,Cow,Horse,Rabbit,Sheep) IF=1:100-500
<b>Applications</b>	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight</b>	44kDa
<b>Form</b>	Lyophilized or Liquid
<b>Concentration</b>	1mg/ml
<b>immunogen</b>	KLH conjugated synthetic peptide derived from human ABH1/ALKB
<b>Lsotype</b>	IgG
<b>Purification</b>	affinity purified by Protein A
<b>Storage Buffer</b>	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol 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 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>Storage</b>	
<b>Product Detail</b>	<b>background:</b> 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.

**Database links:**

[Entrez Gene: 8846](#) Human

[Entrez Gene: 211064](#) Mouse

[Omim: 605345](#) Human

[SwissProt: Q13686](#) Human

[SwissProt: P0CB42](#) Mouse

[Unigene: 94542](#) Human



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[Unigene: 26840](#) Mouse

**Important Note:**

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