

# Recombinant human Alpha-ketoglutarate-dependent dioxygenase alkB homolog 3

Catalog No: #AP71463

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Package Size: #AP71463-1 20ug #AP71463-2 100ug #AP71463-3 1mg

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## Description

Product Name	Recombinant human Alpha-ketoglutarate-dependent dioxygenase alkB homolog 3
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:1-170aaSequence Info:Full Length of Isoform 2
Other Names	Alkylated DNA repair protein alkB homolog 3DEPC-1;Prostate cancer antigen 1
Accession No.	Q96Q83
Uniprot	Q96Q83
GeneID	221120;
Calculated MW	35.3 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	MEEKRRRARVQGAWAAPVKSQAIAPATTAKSHLHQKPGQTWKNKEHHLSDREFVFKPEPQQVRRRAPEPR VIEEGVYEISLSPTGVSRLVCLYPGFVDVKEADWILEQLCQDVPWKQRTGIREDLSILQLTFKKSAPVSGTATAPQ SCWYERPSPPHIPGPAILTRTRLWAP
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.  Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Background

Dioxygenase that repairs alkylated DNA containing 1-methyladenine (1meA) and 3-methylcytosine (3meC) by oxidative demethylation. Has a strong preference for single-stranded DNA. Able to process alkylated 3mC within double-stranded regions via its interaction with ASCC3, which promotes DNA unwinding to generate single-stranded substrate needed for ALKBH3. May also act on RNA. Requires molecular oxygen, alpha-ketoglutarate and iron.

## References

Homo sapiens mRNA expressed in prostate cancer and thymus.Tsujikawa K., Konishi N., Ono Y., Ichijou T., Sakamoto K., Yamamoto H. NIEHS SNPs programHuman chromosome 11 DNA sequence and analysis including novel gene identification.Taylor T.D., Noguchi H., Totoki Y., Toyoda A., Kuroki Y., Dewar K., Lloyd C., Itoh T., Takeda T., Kim D.-W., She X., Barlow K.F., Bloom T., Bruford E., Chang J.L., Cuomo C.A., Eichler E., FitzGerald M.G., Jaffe D.B., LaButti K., Nicol R., Park H.-S., Seaman C., Sougnez C., Yang X., Zimmer A.R., Zody M.C., Birren B.W., Nusbaum C., Fujiyama A., Hattori M., Rogers J., Lander E.S., Sakaki Y.Nature 440:497-500(2006)Research Topic:Epigenetics and Nuclear Signaling

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Note: This product is for in vitro research use only