# abcam

# Product datasheet

# Recombinant Human KMT1E / SETDB1 protein ab153023

# 1 Image

**Description** 

Product name Recombinant Human KMT1E / SETDB1 protein

**Expression system** Wheat germ

Protein length Protein fragment

Animal free No

Nature Recombinant

**Species** Human

**Sequence** SSLPGCIGLDAATATVESEEIAELQQAVVEELGISMEELRH

**FIDEELEKM** 

DCVQQRKKQLAELETWVIQKESEVAHVDQLFDDASRAVT

**NCESLVKDFY** 

Amino acids 2 to 100

Tags GST tag N-Terminus

### **Specifications**

Our Abpromise guarantee covers the use of ab153023 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** ELISA

Western blot

Form Liquid

**Additional notes** 

# **Preparation and Storage**

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 8.00

Constituents: 0.31% Glutathione, 0.79% Tris HCI

1

#### **General Info**

# **Function** Histone methyltransferase that specifically trimethylates 'Lys-9' of histone H3. H3 'Lys-9'

trimethylation represents a specific tag for epigenetic transcriptional repression by recruiting HP1 (CBX1, CBX3 and/or CBX5) proteins to methylated histones. Mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes. H3 'Lys-9' trimethylation is coordinated with DNA methylation. Probably forms a complex with MBD1 and ATF7IP that represses transcription and couples DNA methylation and histone 'Lys-9' trimethylation. Its activity is dependent on MBD1 and is heritably maintained through DNA replication by being recruited by CAF-1. SETDB1 is targeted to histone H3 by TRIM28/TIF1B, a

factor recruited by KRAB zinc-finger proteins.

**Tissue specificity** Widely expressed. High expression in testis.

**Sequence similarities**Belongs to the histone-lysine methyltransferase family. Suvar3-9 subfamily.

Contains 1 MBD (methyl-CpG-binding) domain.

Contains 1 post-SET domain. Contains 1 pre-SET domain. Contains 1 SET domain. Contains 2 Tudor domains.

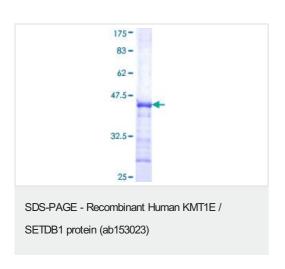
**Domain** The pre-SET, SET and post-SET domains are all required for methyltransferase activity. The 347-

amino-acid insertion in the SET domain has no effect on the catalytic activity. Isoform 2 lacks all domains required for histone methyltransferase activity.

Cellular localization Nucleus. Chromosome. Associated with non-pericentromeric regions of chromatin. Excluded from

nucleoli and islands of condensed chromatin.

# **Images**



ab153023 on a 12.5% SDS-PAGE stained with Coomassie Blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

# Our Abpromise to you: Quality guaranteed and expert technical support

• Replacement or refund for products not performing as stated on the datasheet

- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- · We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.com/abpromise">https://www.abcam.com/abpromise</a> or contact our technical team.

# Terms and conditions

· Guarantee only valid for products bought direct from Abcam or one of our authorized distributors