

Recombinant KMT2D (MLL2)-SET protein

Catalog No: 31420, 31820

Lot No: 14915002

Expressed In: *E. coli*

Quantity: 50 µg

Concentration: 0.4 µg/µl

Source: Human

Buffer Contents: Recombinant KMT2D (MLL2)-SET protein was expressed in *E. coli* cells and supplied in 25 mM Tris pH 8.0, 300 mM NaCl, 5% glycerol, 0.04% Triton X-100.

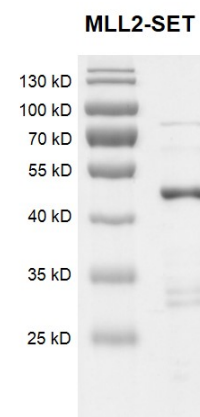
Background: KMT2D (MLL2)-SET (Myeloid/lymphoid or mixed-lineage leukemia 2) is a Trithorax-group protein that function collectively to promote gene expression. KMT2D (MLL2)-SET is a histone methyltransferase that methylates the Lysine 4 position of histone H3. In particular, the SET domain is a conserved C-terminal domain that characterizes proteins of the MLL (mixed-lineage leukemia) family. The SET domain is responsible for its histone methyltransferase activity which mediates chromatin modifications associated with epigenetic transcriptional activation. H3K4 methylation represents a specific epigenetic tag for transcriptional activation. KMT2D (MLL2)-SET is part of a large protein complex called ASCOM, which has been shown to be a transcriptional regulator of the β -globin and estrogen receptor genes. Mutations in this gene have been shown to be a cause of Kabuki syndrome.

Protein Details: The peptide corresponding to amino acids 5355 - 5537 of the KMT2D (MLL2)-SET protein (accession number NP_003473.3) was expressed in *E. coli*. The peptide contains the SET domain of MLL2 that is responsible for methyltransferase activity. Recombinant KMT2D (MLL2)-SET protein contains an N-terminal GST-Tag with a molecular weight of 47.6 kDa. The recombinant protein is $\geq 80\%$ pure by SDS-PAGE.

Application Notes: Recombinant KMT2D (MLL2)-SET protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

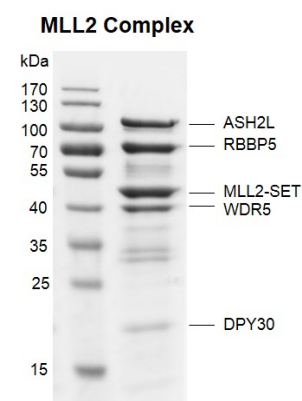
Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



Recombinant KMT2D (MLL2)-SET protein gel.

KMT2D (MLL2)-SET protein was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.



Recombinant KMT2D (MLL2)-SET protein binding assay.

KMT2D (MLL2)-SET was incubated with equimolar other 4 components of MLL2 complex (ASH2L, RBBP5, WDR5 and DPY30) for 2 hours 4°C . All the components were pulled down by GST beads. The sample was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.