

Recombinant SETDB1 protein

Catalog No: 31452, 31852

Expressed In: Baculovirus

Quantity: 50, 1000 µg

Concentration: 0.5 µg/µl

Source: Human

Buffer Contents: Recombinant SETDB1 protein is supplied in 25 mM HEPES pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

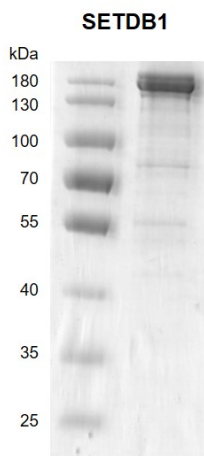
Background: SETDB1 (SET Domain, Bifurcated 1) is a histone methyltransferase that methylates histone H3 at lysine 9. H3K9 methylation is associated with transcriptional repression and gene silencing through recruitment of HP1 proteins to methylated histones. H3K9 trimethylation is coordinated with DNA methylation, most likely through formation of a complex with MBD1 and ATF7IP that leads to transcriptional repression. SETDB1 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, a factor recruited by KRAB zinc-finger proteins. Aberrant SETDB1 function is associated with the pathogenesis of Huntington Disease.

Protein Details: Recombinant human SETDB1 protein was expressed in a baculovirus expression system as the full length protein (accession number NP_001138887.1) with an N-terminal FLAG tag. The molecular weight of the protein is 145 kDa.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.

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.



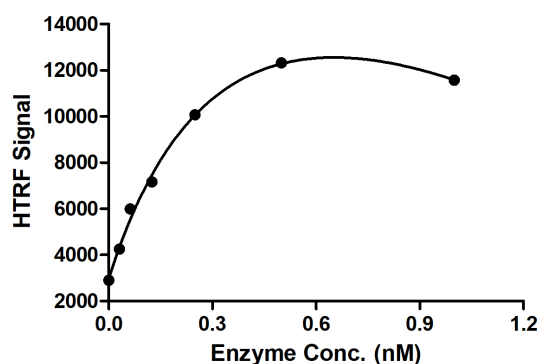
Recombinant SETDB1 protein gel.

SETDB1 protein was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.

MW: 145 kDa

Purity: > 85%

SETDB1 Titration

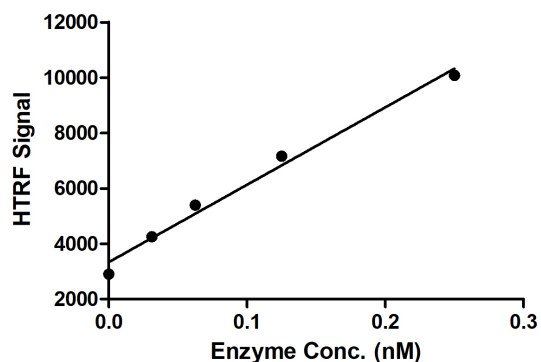


HTRF assay for Recombinant SETDB1 protein activity.

1 μ M histone peptide H3 (1-21) was incubated with SETDB1 in reaction buffer including 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP and 50 μ M SAM for 3 hours at room temperature.

H3K9me2 antibody was used to detect reaction product.

SETDB1 Titration



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