

CoraLite® Plus 488-conjugated SETDB1 Monoclonal antibody

Catalog Number: **CL488-66293**

Basic Information

Catalog Number: CL488-66293	GenBank Accession Number: BC009362	Purification Method: Protein G purification
Size: 1000 µg/ml	GeneID (NCBI): 9869	CloneNo.: 1H6E5
Source: Mouse	UNIPROT ID: Q15047	Recommended Dilutions: IF/ICC 1:50-1:500
Isotype: IgG1	Full Name: SET domain, bifurcated 1	Excitation/Emission maxima wavelengths: 493 nm / 522 nm
Immunogen Catalog Number: AG21644	Calculated MW: 143 kDa	
	Observed MW: 170-180 kDa	

Applications

Tested Applications: IF/ICC, FC (Intra)	Positive Controls: IF/ICC : A431 cells,
Species Specificity: human, mouse, rat	

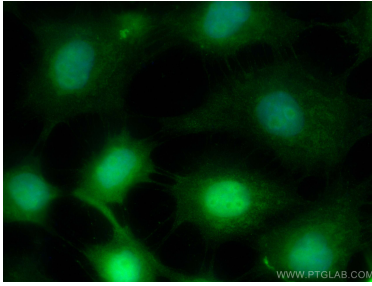
Background Information

SETDB1, also named as ESET, KIAA0067 and KMT1E, belongs to the histone-lysine methyltransferase family. It is a SET domain protein with histone H3-K9-specific methyltransferase activity. H3 'Lys-9' trimethylation is coordinated with DNA methylation and represents a specific tag for epigenetic transcriptional repression by recruiting HP1 (CBX1, CBX3 and/or CBX5) proteins to methylated histones. SETDB1 mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes. It 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 regulates histone methylation, gene silencing, and transcriptional repression. It has been identified as a target for treatment in Huntington Disease, given that gene silencing and transcription dysfunction likely play a role in the disease pathogenesis. The calculated molecular weight of SETDB1 is 143 kDa, but the modified SETDB1 protein is about 170 kDa (PMID: 11791185).

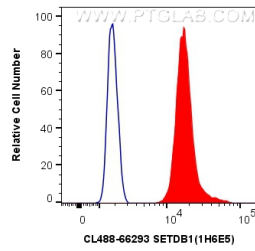
Storage

Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.
Aliquoting is unnecessary for -20°C storage

Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed A431 cells using CoraLite® Plus 488 SETDB1 antibody (CL488-66293, Clone: 1H6E5) at dilution of 1:200.



1X10⁶ MCF-7 cells were intracellularly stained with 0.4 ug CoraLite® Plus 488 Anti-Human SETDB1 (CL488-66293, Clone:1H6E5) (red), or 0.4 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).