

Rabbit SETD2 Polyclonal Antibody | anti-SETD2 antibody

SETD2 Antibody

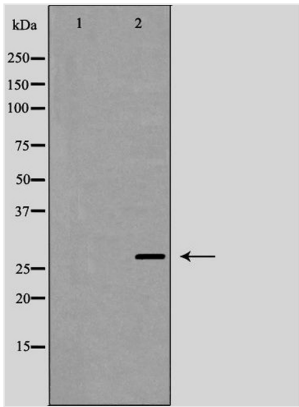
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326952	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

SETD2; Polyclonal Antibody; SETD2 Antibody; EC 2.1.1.43; FLJ16420; FLJ22472; FLJ23184; FLJ45883; HBP231; HIF 1; HIF-1; HIF1; HIP-1; Histone lysine N methyltransferase SETD2; Histone-lysine N-methyltransferase SETD2; hSET2; HSPC069; Huntingtin interacting protein 1; Huntingtin interacting protein; Huntingtin interacting protein B; Huntingtin interacting protein HYPB; Huntingtin yeast partner B; Huntingtin-binding protein; 231-KD; Huntingtin-interacting protein 1; Huntingtin-interacting protein B; HYPB; KIAA1732; KMT3A; Lysine N methyltransferase 3A; Lysine N-methyltransferase 3A; p231HBP; SET domain containing 2; SET domain-containing protein 2; SET2; SETD2_HUMAN; anti-SETD2 antibody

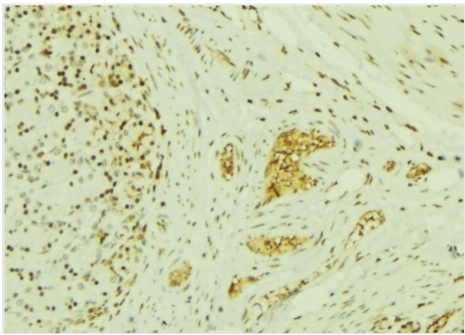
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	SETD2 antibody detects endogenous levels of total SETD2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	2564
Applicable Applications for anti-SETD2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SETD2
Subcellular Location	Nucleus. Chromosome.
Tissue Specificity	Ubiquitously expressed.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)

Western blot analysis of Hela cell lysate, using SETD2 Antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA326952 at 1/100 staining Human breast cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-SETD2 antibody	Description: Huntington's disease (HD), a neurodegenerative disorder characterized by loss of striatal neurons, is caused by an expansion of a polyglutamine tract in the HD protein huntingtin. This gene encodes a protein belonging to a class of huntingtin interacting proteins characterized by WW motifs. This protein is a histone methyltransferase that is specific for lysine-36 of histone H3, and methylation of this residue is associated with active chromatin. This protein also contains a novel transcriptional activation domain and has been found associated with hyperphosphorylated RNA polymerase II. Function: Histone methyltransferase that specifically trimethylates 'Lys-36' of histone H3 (H3K36me3) using dimethylated 'Lys-36' (H3K36me2) as substrate (PubMed:16118227, PubMed:19141475, PubMed:21526191, PubMed:21792193, PubMed:23043551, PubMed:27474439). Represents the main enzyme generating H3K36me3, a specific tag for epigenetic transcriptional activation (By similarity). Plays a role in chromatin structure modulation during elongation by coordinating recruitment of the FACT complex and by interacting with hyperphosphorylated POLR2A (PubMed:23325844). Acts as a key regulator of DNA mismatch repair in G1 and early S phase by generating H3K36me3, a mark required to recruit MSH6 subunit of the MutS alpha complex: early recruitment of the MutS alpha complex to chromatin to be replicated allows a quick identification of mismatch DNA to initiate the mismatch repair reaction (PubMed:23622243). Required for DNA double-strand break repair in response to DNA damage: acts by mediating formation of H3K36me3, promoting recruitment of RAD51 and DNA repair via homologous recombination (HR) (PubMed:24843002). Acts as a tumor suppressor (PubMed:24509477). H3K36me3 also plays an essential role in the maintenance of a heterochromatic state, by recruiting DNA methyltransferase DNMT3A (PubMed:27317772). H3K36me3 is also enhanced in intron-containing genes, suggesting that SETD2 recruitment is enhanced by splicing and that splicing is coupled to recruitment of elongating RNA polymerase (PubMed:21792193). Required during angiogenesis (By similarity). Required for endoderm development by promoting embryonic stem cell differentiation toward endoderm: acts by mediating formation of H3K36me3 in distal promoter regions of FGFR3, leading to regulate transcription initiation of FGFR3 (By similarity). In addition to histones, also mediates methylation of other proteins, such as tubulins and STAT1 (PubMed:27518565, PubMed:28753426). Trimethylates 'Lys-40' of alpha-tubulins such as TUBA1B (alpha-TubK40me3); alpha-TubK40me3 is required for normal mitosis and cytokinesis and may be a specific tag in cytoskeletal remodeling (PubMed:27518565). Involved in interferon-alpha-induced antiviral defense by mediating both monomethylation of STAT1 at 'Lys-525' and catalyzing H3K36me3 on promoters of some interferon-stimulated genes (ISGs) to activate gene transcription (PubMed:28753426). Subunit Structure: Specifically interacts with hyperphosphorylated C-terminal domain (CTD) of RNA polymerase II large subunit (POLR2A): binds to CTD heptad repeats doubly phosphorylated on 'Ser-2' and 'Ser-5' of each heptad (PubMed:16118227, PubMed:16314571). Interacts with HTT (PubMed:11461154, PubMed:9700202, PubMed:10958656). Interacts with IWS1 (PubMed:19141475). Interacts with p53/TP53; leading to regulate p53/TP53 target genes (PubMed:18585004). Component of a complex with HNRNPL (PubMed:19332550). Interacts with TUBA1A; the interaction is independent on alpha-tubulin acetylation on 'Lys-40' (PubMed:27518565). Interacts with STAT1 (PubMed:28753426). Post-translational Modifications: May be automethylated. Similarity: The low charge region mediates the transcriptional activation activity. The catalytic SET domain binds histone H3 (PubMed:27474439, PubMed:28256625). It is also able to bind oncogenic histone H3 K36M/I found in a number of cancer types, in which histone H3 'Lys-36' is replaced by a Met or an Ile residue. When binding the oncogenic variant histone H3 K36M/I, the SET domain undergoes dramatic conformational change to accommodate the histone H3 peptide, leading to sequester and inhibit SETD2 activity and block global H3K36 methylation (PubMed:27474439, PubMed:28256625). Belongs to the class V-like SAM-binding methyltransferase superfamily. Histone-lysine methyltransferase family. SET2 subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	197313748
NCBI GeneID	29072
NCBI Accession #	NP_054878.5
NCBI GenBank Nucleotide #	NM_014159.6
UniProt Accession #	Q9BYW2; O75397; O75405; Q17RW8; Q5BKS9; Q5QGN2; Q69YI5; Q6IN64; Q6ZN53; Q6ZS25; Q8N3R0; Q8TCN0
Molecular Weight	Observed: 28 kDa Predicted: 288 kDa
NCBI Official Full Name	histone-lysine N-methyltransferase SETD2 isoform 1

NCBI Official Synonym Full Names	SET domain containing 2
NCBI Official Symbol	SETD2
NCBI Official Synonym Symbols	LLS; HYPB; SET2; HIF-1; HIP-1; KMT3A; HBP231; HSPC069; p231HBP
NCBI Protein Information	histone-lysine N-methyltransferase SETD2
UniProt Protein Name	Histone-lysine N-methyltransferase SETD2
UniProt Gene Name	SETD2
UniProt Synonym Gene Names	HIF1; HYPB1 PublicationManual assertion based on opinion iniRef.6; HIP-1; hSET21 PublicationManual assertion based on opinion iniRef.19

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/setd2-antibody-immunohistochemistry-western-blot-elisa/326952>