

Recombinant Human ASH1L protein, GST-tagged

Cat. No. ASH1L-47H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ASH1L protein, fused with N-terminal GST tag was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	2022-2302
Description	ASH1L is a large , multi-domain protein associated with actively transcribed regions of chromatin, ASH1L is the human homolog of Drosophila Ash1, a Trithorax group protein. Like its counterpart in Drosophila, ASH1L contains a SET histone methyltransferase domain and has been found to play a role in the regulation of Hox gene expression. Although the ASH1L SET domain has been shown in vitro to methylate histone peptides on lysine-4 of histone H3 (H3K4), ASH1L is an H3K36 methyltransferase both in vivo and in vitro with nucleosomes as substrate. Recruitment of ASH1L by the ncRNA DBE-T to the chromosome 4q35 locus associated with FSHD (facioscapulohumeral muscular dystrophy) leads to increased H3K36me2 and inappropriate gene derepression at the FSHD locus. In a possible positive feedback loop, ASH1L increases expression of DBE-T itself, suggesting ASH1L's methyltransferase activity or its interaction with DBE-T as potential therapeutic targets for FSHD.
Form	Solution of purified recombinant protein in 50 mM Tris/HCl, pH 7.5, 150 mM NaCl, 1

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	mM TCEP, 10% (v/v) glycerol
Molecular Mass	59.5 kDa
Storage	Store at -80centigrade. Thaw quickly and store on ice before use. Avoid repeated freezing and thawing cycles.
GENE INFORMATION	
Gene Name	ASH1L ash1 (absent, small, or homeotic)-like (Drosophila) [Homo sapiens]
Official Symbol	ASH1L
Synonyms	ASH1L; ash1 (absent, small, or homeotic)-like (Drosophila); histone-lysine N-methyltransferase ASH1L; ASH1; ASH1L1; huASH1; KMT2H; ASH1-like protein; lysine N-methyltransferase 2H; absent small and homeotic disks protein 1 homolog; probable histone-lysine N-methyltransferase ASH1L; FLJ10504; KIAA1420;
Gene ID	55870
mRNA Refseq	NM_018489
Protein Refseq	NP_060959
MIM	607999
UniProt ID	Q9NR48
Chromosome Location	1q22
Pathway	Lysine degradation, organism-specific biosystem; Lysine degradation, conserved

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biosystem; Tight junction, organism-specific biosystem; Tight junction, conserved biosystem;

Function

DNA binding; histone-lysine N-methyltransferase activity; metal ion binding; methyltransferase activity; transferase activity; zinc ion binding;

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