Recombinant SMYD2 protein

Catalog No: 31497, 31901
Expressed In: Baculovirus

Quantity: 20, 1000 µg
Concentration: 0.25 µg/µl
Source: Human

Buffer Contents: Full length recombinant SMYD2 protein expressed in Sf9 cells and is supplied in 25 mM Hepes pH 7.5, 300 mM NaCl, 5% Glycerol, 0.04% Triton X-100, 0.2 mM TCEP.

Background: SMYD2 (SET and MYND domain containing protein 2) is a lysine methyltransferase that methylates both histones and non-histone proteins. Specifically, SMYD2 methylates histone H3 Lys4 (H3K4me1) and dimethylates histone H3 Lys36 (H3K36me2). SMYD2 also exhibits methyltransferase activity toward non-histone proteins such as p53 and pRb. SMYD2 monomethylates Lys370 of p53, leading to decreased DNA-binding activity and subsequent inhibition of p53-mediated transcriptional regulation. SMYD2 also monomethylates Lys860 of pRb.

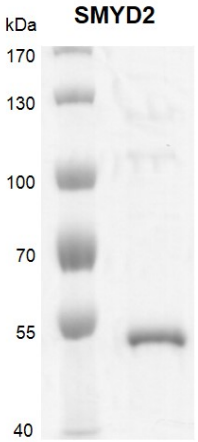
Protein Details: Recombinant SMYD2 protein (accession number NP_064582.2) was expressed in Sf9 cells and contains an N-terminal FLAG-Tag with a molecular weight of 50.7 kDa. The recombinant protein is >90% pure by SDS-PAGE.

Application Notes: Recombinant SMYD2 is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

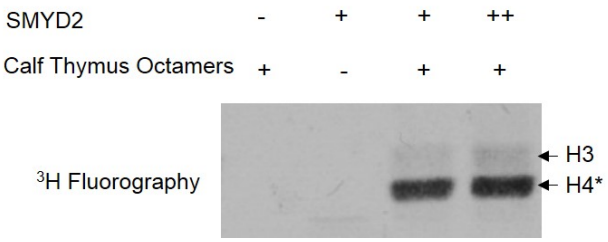
HMT Assay Conditions: 2 ug Calf Thymus Octamer was incubated with different concentrations of recombinant SMYD2 protein in reaction buffer containing 50 mM TrisCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl2, 1 mM TCEP, 100 µM 3H-SAM for 3 hours at room temperature. Activity was detected by Autoradiography.

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 SMYD2 protein gel
SMYD2 protein was run on an 8% SDS-PAGE gel and stained with Coomassie blue.



Recombinant SMYD2 protein activity assay
2 ug Calf Thymus Octamers was incubated with 0.5 ug and 1 ug SMYD2 protein respectivley in reaction buffer containing radioactive 3H-SAM for 3 hours at room temperature. Activity was detected by Autoradiography.

*Our result showed that H4 may also be methylated by SMYD2.