

Recombinant NSD2 (E1099K) protein

Catalog No: 31546, 31946

Lot No: 24616001

Expressed In: Baculovirus

Quantity: 20 µg

Concentration: 0.35 µg/µl

Source: Human

Buffer Contents: Full length recombinant NSD2 (E1099K) protein is supplied at a concentration of 0.35 µg/µl in 25 mM HEPES pH 7.5, 500 mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2 mM TCEP.

Background: NSD2 (nuclear receptor binding SET domain protein 1; also known as WHSC1; MMSET; TRX5) is a SET domain-containing histone methyltransferase specific for lysine 36 of histone H3. The NSD2 gene is deleted in Wolf- Hirschhorn syndrome, a disorder characterized by developmental defects and mental retardation. In 15% of patients with Multiple Myeloma (MM), a chromosomal translocation leads to NSD2 gene being aberrantly placed under the control of the IgH intronic µ enhancer and expressed at very high levels. This event is apparently a key component in cellular transformation leading to MM. Reduction in NSD2 expression in a myeloma cell line suppressed its growth, suggesting a role for NSD2 in maintaining the transformed state.

NSD2 p.Glu1099Lys (p.E1099K) variant was identified in nontranslocated acute lymphoblastic leukemia (ALL) cell lines.

Protein Details: Recombinant human NSD2 (E1099K) was expressed in a baculovirus expression system as the full length protein (accession number NP_579877.1) with a point mutation (Glu1099Lys) and an N-terminal FLAG tag. The molecular weight of the protein is 154 kDa. The purity of NSD2 (E1099K) protein is >75% by SDS-PAGE.

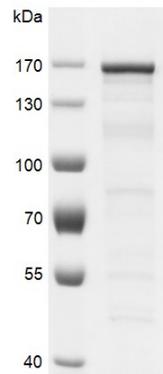
Application Notes: Recombinant NSD2 (E1099K) is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

HMT Assay Conditions: 60 ng/µl recombinant nucleosomes was incubated with 30 ng/µl NSD2 (E1099K) protein in reaction buffer including 50 mM TrisCl, pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP, 50 uM SAM, for 3 hours at room temperature. Activity was detected by Western Blot.

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.

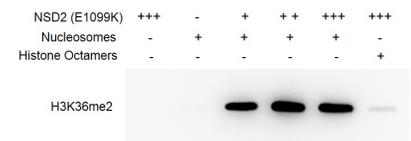
This product is for research use only and is not for use in diagnostic procedures.

NSD2 (E1099K)



Recombinant NSD2 (E1099K) protein gel. NSD2 (E1099K) protein was run on an 8% SDS-PAGE gel and stained with Coomassie Blue.

The purity of NSD2 (E1099K): ≥ 75%



Recombinant NSD2 (E1099K) activity assay.

2 µg recombinant nucleosomes (Cat #: 31468) was incubated with 0 µg (-), 0.25 µg (+), 0.5 µg (++) , 1 µg NSD2 (E1099K)(+++), respectively, in reaction buffer for 3 hours at room temperature. 2 µg histone octamer (Cat #: 31472) was used as a control substrate for NSD2 (E1099K) assay. Production (H3K36me2) was detected by Western blot.