

EPC2 Antibody / Enhancer of polycomb homolog 2 Antibody (FY13646)

Catalog No.	Formulation	Size
FY13646	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human, Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q52LR7
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5 ug/ml
Limitations	Intended solely for research purposes, this EPC2 Antibody / Enhancer of polycomb homolog 2 Antibody is not for clinical use.

EPC2 Antibody by FCM in RT4 cells. Flow cytometry of fixed, permeabilized RT4 cells stained with EPC2 Antibody and a Fluoro488-conjugated secondary antibody. The blue EPC2 histogram is shifted to higher fluorescence than the green rabbit IgG isotype control, while the red unstained control remains at lower fluorescence. Cells were blocked with 10% goat serum and incubated with 1 ug of primary antibody per million cells. The histogram supports intracellular EPC2 detection under the tested conditions.

EPC2 Antibody by IHC in human brain tissue. Immunohistochemistry of paraffin-embedded human brain tissue using Enhancer of polycomb homolog 2 Antibody. Heat-induced epitope retrieval used EDTA buffer at pH 8.0, followed by 10% goat serum blocking. The section was incubated with 2 ug/ml primary antibody overnight at 4oC. Peroxidase-conjugated goat anti-rabbit IgG and DAB chromogen produced brown immunoreactivity, with blue nuclear counterstaining visible throughout the section.

EPC2 Antibody by IF in HeLa cells. Immunofluorescence staining of HeLa cells with Enhancer of polycomb homolog 2 Antibody, shown in green, together with alpha tubulin staining in red. The green signal is concentrated in nuclei, while the red tubulin signal outlines the cytoplasmic microtubule network. Cells were incubated with 5 ug/ml primary antibody overnight at 4oC, followed by fluorescent goat anti-rabbit and goat anti-mouse secondary antibodies.

EPC2 Antibody by WB in human and mouse cell lysates. Western blot analysis using Enhancer of polycomb homolog 2 Antibody on 30 ug of reducing whole-cell lysate per lane. Lanes 1-5 contain human HEL, K562, SH-SY5Y and RT4 cells, followed by mouse Neuro-2a cells. Samples were resolved on a 10% SDS-PAGE gel, transferred to nitrocellulose and probed with 0.5 ug/ml primary antibody overnight at 4oC. HRP-conjugated goat anti-rabbit IgG and chemiluminescent detection revealed a band near 91 kDa in each lane, consistent with the calculated EPC2 molecular weight of approximately 91 kDa.

Description

EPC2 Antibody / Enhancer of polycomb homolog 2 Antibody targets a protein with important roles in cellular biology. Enhancer of polycomb homolog 2 (EPC2) is a chromatin-associated protein that contributes to the organization of transcriptional regulatory complexes. Rather than acting as a DNA-binding transcription factor, EPC2 functions through protein interactions that influence histone acetylation and the accessibility of genomic regions to transcriptional machinery. It is a component of the NuA4/TIP60 histone acetyltransferase complex, which modifies histones and other nuclear proteins in processes requiring coordinated chromatin remodeling.

The NuA4/TIP60 complex is involved in transcriptional control, DNA damage responses and maintenance of genome stability. Acetylation of histone tails can alter nucleosome interactions and facilitate the recruitment of proteins that recognize particular chromatin states. EPC2 helps support the assembly or activity of this multiprotein machinery, although the consequences of disrupting individual subunits are not necessarily identical. The protein is related to EPC1, another enhancer of polycomb family member, and the two share structural features associated with complex formation.

Chromatin regulators often have context-dependent effects because their activity depends on the genes being regulated and the other factors present at a locus. EPC2 has therefore been considered in studies of transcriptional programs, cellular differentiation and changes in chromatin structure accompanying disease. Its role is best understood as part of an interacting protein network rather than as a solitary on-off switch for gene expression.

NSJ Bioreagents offers this EPC2 Antibody to support research into how EPC2-containing acetyltransferase complexes coordinate chromatin modification with transcription and genome maintenance. Defining the molecular contributions of EPC2 may help distinguish the functions of related chromatin complexes and clarify how their subunit composition shapes nuclear regulation.

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Application Notes

The optimal working dilution of the EPC2 Antibody / Enhancer of polycomb homolog 2 Antibody should be determined empirically by the investigator.

Immunogen

The EPC2 Antibody was generated using e. coli-derived human EPC2 recombinant protein (amino acids P299-N795).

Storage

Following reconstitution, the EPC2 Antibody can be kept at 4°C for one month. Aliquot for extended storage at -20°C for up to six months, avoiding repeated freezing and thawing.

Alternate Names

EPC2 antibody, Enhancer of polycomb homolog 2 antibody, enhancer of polycomb 2 antibody, EPC-like antibody, EPC2 rabbit polyclonal antibody