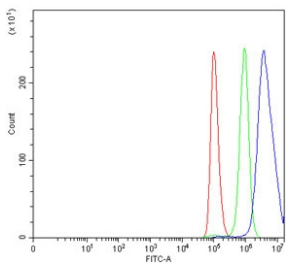
# EED Antibody / Polycomb Protein EED Polyclonal Antibody (RQ7166)

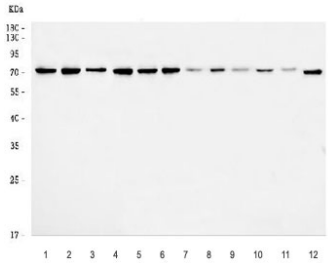
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ7166 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

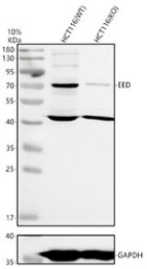
| | |
|---|---|
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | O75530 |
| **Applications** | Western blot: 0.5-1ug/ml<br>Flow cytometry: 1-3ug/million cells<br>Direct ELISA: 0.1-0.5ug/ml |
| **Limitations** | This EED Antibody / Polycomb Protein EED Polyclonal Antibody is available for research use only. |




EED Antibody FACS Analysis of Human A549 Cells. Flow cytometry analysis of human A549 cells using Polycomb Protein EED Polyclonal Antibody at 1 ug per million cells following blocking with goat serum. The blue histogram represents antibody-stained cells, the green histogram represents the isotype control, and the red histogram represents unstained cells. The antibody-stained population exhibits a rightward fluorescence shift relative to both controls.




EED Antibody WB Analysis of Human, Rat and Mouse Cell and Tissue Lysates. Western blot analysis of human HeLa (lane 1), HepG2 (lane 2), K562 (lane 3), Caco-2 (lane 4), SiHa (lane 5), and RT4 (lane 6) cell lysates; rat brain (lane 7), heart (lane 8), and testis (lane 9) tissue lysates; rat C6 cells (lane 10); mouse brain (lane 11); and mouse NIH3T3 cells (lane 12) using Polycomb Protein EED Polyclonal Antibody. An immunoreactive band is detected near 70 kDa across all 12 samples, above the calculated molecular weight of approximately 50 kDa for EED. Apparent molecular weights approaching 70 kDa have also been documented for EED in published studies.




EED Antibody WB Analysis of Wild-Type and EED Knockout HCT116 Cells. Western blot analysis of human HCT116 wild-type (WT, lane 1) and EED knockout (KO, lane 2) whole-cell lysates using Polycomb Protein EED Polyclonal Antibody at 0.5 ug/ml. An immunoreactive band near 70 kDa is detected in WT lysate and is absent from the KO sample, supporting EED-specific recognition. Although the calculated molecular weight of EED is approximately 50 kDa, apparent molecular weights approaching 70 kDa have been documented in published studies. GAPDH serves as the loading control.

## Description

EED Antibody / Polycomb Protein EED Polyclonal Antibody targets embryonic ectoderm development protein (EED), a conserved member of the Polycomb group of proteins and an essential component of Polycomb Repressive Complex 2 (PRC2). This chromatin-associated complex regulates gene expression through histone methylation and contributes to the establishment and maintenance of transcriptionally repressive chromatin states. EED plays a central role in coordinating PRC2 activity, allowing cells to maintain appropriate patterns of gene expression during development, differentiation, and cellular identity transitions.

PRC2 contains several core components, including EED, EZH2 or EZH1, SUZ12, and RBBP4 or RBBP7. EZH2 and EZH1 provide the catalytic activity responsible for methylating lysine 27 of histone H3 (H3K27), while EED contributes to the recognition of methylated chromatin and regulation of complex activity. EED contains a seven-bladed WD40 beta-propeller structure that recognizes trimethylated H3K27 and other methylated ligands. Binding of EED to H3K27me3 promotes allosteric activation of PRC2, supporting the propagation of this repressive histone modification across chromatin.

Through its role in PRC2, EED participates in the silencing of genes that must remain inactive in particular cellular contexts. Polycomb-mediated repression is especially important during embryonic development, when cells progressively establish specialized transcriptional programs. EED contributes to the regulation of developmental genes, stem cell differentiation, and the maintenance of lineage-specific gene expression. Disruption of PRC2 function can alter chromatin organization and interfere with normal developmental processes.

EED also has important implications in cancer biology. Abnormal PRC2 activity can contribute to inappropriate repression of genes involved in differentiation and growth regulation. Conversely, loss-of-function alterations affecting PRC2 components occur in certain malignancies, demonstrating that the consequences of altered Polycomb regulation depend on cellular and genetic context. EED has therefore attracted interest as a regulatory component of PRC2 and as a potential target for therapeutic strategies that interfere with complex activity.

Research involving EED Antibody contributes to understanding the relationship between Polycomb protein function, histone methylation, and transcriptional repression. Characterizing EED expression and regulation provides insight into the epigenetic mechanisms that preserve cellular identity and influence developmental and disease-associated gene expression programs.

Explore additional antibodies targeting Polycomb proteins, histone-modifying enzymes, and chromatin-associated regulators in our Epigenetics Antibodies collection.

## Application Notes

Optimal dilution of the EED Antibody / Polycomb Protein EED Polyclonal Antibody should be determined by the researcher.

## Immunogen

Recombinant human protein (amino acids K77-R441) was used as the immunogen for the Embryonic ectoderm

development protein antibody.

## Storage

After reconstitution, the EED Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

## Alternate Names

Embryonic ectoderm development protein antibody, Polycomb protein EED antibody, EED Polycomb protein antibody, Embryonic ectoderm development antibody, PRC2 EED antibody, Polycomb Repressive Complex 2 EED antibody, EED WD40 protein antibody, EED chromatin regulator antibody, EED epigenetic regulator antibody, EED transcriptional repressor antibody


Copyright © NSJ Bioreagents. All rights reserved.