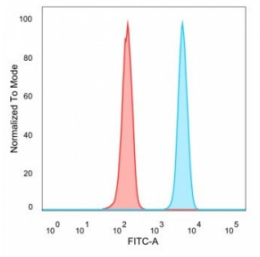
CEBPZ Antibody [clone PCRP-CEBPZ-2D8] (V4893)

Catalog No.	Formulation	Size
V4893-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4893-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4893SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

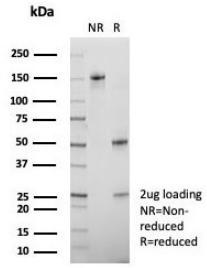
Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c
Clone Name	PCRP-CEBPZ-2D8
Purity	Protein A/G affinity
UniProt	Q03701
Localization	Nucleus
Applications	Flow Cytometry : 1-2ug/million cells Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CEBPZ antibody is available for research use only.

Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using CEBPZ Mouse Monoclonal (PCRP-CEBPZ-2D8). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a mAb to its intended target. A mAb is considered to specific to its intended target, if the mAb has an S-score of at least 2.5. For example, if a mAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that mAb to protein X is equal to 29.



Flow cytometry testing of PFA-fixed human HeLa cells with CEBPZ antibody (clone PCRP-CEBPZ-2D8) followed by goat anti-mouse IgG-CF488 (blue); Red = unstained cells.



SDS-PAGE analysis of purified, BSA-free CEBPZ antibody (clone PCRP-CEBPZ-2D8) as confirmation of integrity and purity.

Description

CEBPZ antibody (clone PCRP-CEBPZ-2D8) detects CCAAT/enhancer-binding protein Z, a nuclear transcriptional regulator also known as C/EBP zeta. The UniProt recommended name is CCAAT/enhancer-binding protein zeta (CEBPZ). This protein functions as a chromatin-associated transcription factor that modulates gene expression through direct binding to CCAAT motifs and through recruitment of transcriptional co-activators and chromatin remodelers. CEBPZ is predominantly localized to the nucleus, where it associates with active promoter regions and RNA polymerase II complexes.

CEBPZ antibody (clone PCRP-CEBPZ-2D8) recognizes a protein of approximately 115 kDa that plays a critical role in transcription initiation, chromatin accessibility, and promoter-proximal pausing of RNA polymerase II. It acts as a scaffold for pre-initiation complex assembly and contributes to regulation of genes involved in cell cycle control, differentiation, and stress responses. CEBPZ interacts with several co-factors including TBP, TFIIB, and histone-modifying enzymes, serving as a link between transcription factor binding and chromatin remodeling machinery.

The CEBPZ gene is located on chromosome 2q33.1 and is expressed across a wide range of tissues, with elevated expression in proliferating cells and in certain malignancies. CEBPZ shares functional similarity with other CCAAT/enhancer-binding proteins but lacks a canonical basic leucine zipper domain, instead using distinct protein-protein interaction surfaces for DNA binding and transcriptional modulation. The protein contains multiple acidic and serine-rich domains, which contribute to its regulation through phosphorylation and acetylation. These post-translational modifications fine-tune CEBPZ activity during mitosis and cellular stress.

Clone PCRP-CEBPZ-2D8 was developed to specifically detect endogenous CEBPZ with minimal cross-reactivity to other C/EBP family members. This clone provides reliable nuclear staining and western blot detection at the expected molecular size and has been optimized for applications investigating transcriptional activation, chromatin organization, and gene expression regulation. Studies have implicated CEBPZ in promoter-specific recruitment of TFIID and histone acetyltransferase complexes, establishing it as a central player in transcriptional control of housekeeping and stress-inducible genes.

CEBPZ has also been linked to cellular differentiation and oncogenic transformation. Its upregulation has been noted in aggressive tumor types, where it supports transcriptional programs that promote cell proliferation and survival. Conversely, depletion of CEBPZ disrupts nucleolar function and ribosomal gene expression, underscoring its importance in cell growth and biosynthetic regulation. The protein participates in multiple signaling pathways, including those downstream of p53 and MAPK, and acts as a co-regulator of genes involved in DNA repair and replication stress tolerance.

CEBPZ antibody (clone PCRP-CEBPZ-2D8) is suitable for detecting CEBPZ expression in nuclear extracts and tissue samples. Its specificity and high affinity make it valuable for studies focused on transcriptional regulation, chromatin dynamics, and cell proliferation. NSJ Bioreagents provides CEBPZ antibody (clone PCRP-CEBPZ-2D8) validated for use in relevant research applications supporting investigations in nuclear signaling and gene expression control.

Application Notes

Optimal dilution of the CEBPZ antibody should be determined by the researcher.

Immunogen

The protein domain of CEBPZ protein was used as the immunogen for the CEBPZ antibody.

Storage

Aliquot the CEBPZ antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.