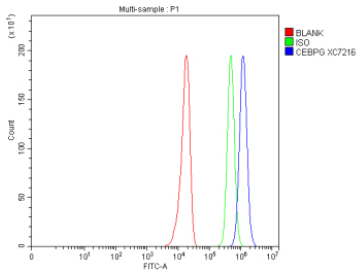
CEBPG Antibody / CCAAT/enhancer-binding protein gamma (FY12677)

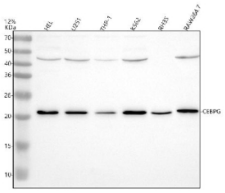
Catalog No.	Formulation	Size
FY12677	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P53567
Applications	Western Blot: 0.25-0.5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This CEBPG antibody is available for research use only.



Flow Cytometry analysis of U251 cells using anti-CEBPG antibody. Overlay histogram showing U251 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CEBPG antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of CEBPG using anti-CEBPG antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HEL whole cell lysates, Lane 2: human U251 whole cell lysates, Lane 3: human THP-1 whole cell lysates, Lane 4: human K562 whole cell lysates, Lane 5: rat RH35 whole cell lysates, Lane 6: mouse RAW264.7 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CEBPG antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A major band is observed at ~21 kDa, consistent with the reported anomalous migration of full-length CEBPG (predicted 16 kDa). A lighter band near 42 kDa likely represents dimeric or post-translationally modified forms of the protein.

Description

CEBPG antibody targets CCAAT/enhancer-binding protein gamma, a member of the CEBP family of transcription factors that regulate genes involved in immune response, metabolism, and cell differentiation. CEBPG lacks a canonical transactivation domain and instead acts as a dimerization partner for other CEBP family members such as CEBPA, CEBPB, and CEBPD, influencing transcription through heterodimer formation. This modulatory activity enables CEBPG to fine-tune expression of genes associated with inflammation, DNA repair, and oxidative stress responses. The protein is localized primarily in the nucleus, where it binds to CCAAT motifs within promoter regions and modulates transcriptional outcomes depending on its dimerization partner.

CEBPG is encoded by the CEBPG gene located on chromosome 19q13.11 and produces a protein of approximately 15 kilodaltons. It is ubiquitously expressed but particularly abundant in immune cells, liver, and lung tissues. Through interaction with CEBPB, CEBPG contributes to the regulation of cytokine expression, lipid metabolism, and acute phase responses. In addition to its transcriptional role, CEBPG has been linked to DNA damage tolerance pathways, where it may cooperate with ATF4 to activate antioxidant genes during cellular stress. The CEBPG antibody is therefore widely used in studies of transcriptional regulation, inflammation, and stress response signaling.

Research indicates that CEBPG participates in regulatory networks controlling macrophage activation and epithelial defense responses. Overexpression or silencing of CEBPG affects the expression of downstream effectors such as SOD2, GPX1, and TNF, linking this factor to redox balance and inflammatory signaling. Because of its cooperative interactions with other CEBP proteins, CEBPG serves as an important hub in transcriptional cascades influencing differentiation and immune adaptation. The CEBPG antibody is validated for western blotting, immunofluorescence, and chromatin immunoprecipitation assays, enabling analysis of protein expression and DNA-binding activity. NSJ Bioreagents provides this antibody for researchers studying gene regulation, stress adaptation, and cellular defense mechanisms.

Application Notes

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

Immunogen

E.coli-derived human CEBPG recombinant protein (Position: M1-Q150) was used as the immunogen for the CEBPG antibody.

Storage

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

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