Purified anti-C/EBP β (3 isoforms C/EBP β, LAP, LIP) Antibody

Catalog# / Size	606202 / 100 µg
Clone	1H7
Regulatory Status	RUO
Other Names	CCAAT/enhancer-binding protein beta, Alpha-1-acid glycoprotein/enhancer binding protein, Interleukin 6-dependent DNA-binding protein (IL-6DBP), Nuclear factor of interleukin 6 (NF-IL6), Liver-enriched transcriptional activator protein (LAP)
Isotype	Mouse IgG2a, κ
Description	C/EBP β (also known as CCAAT/enhancer-binding protein beta, interleukin 6-dependent DNA-binding protein, and nuclear factor of interleukin 6 [NF-IL6]) is a member of the basic leucine zipper C/EBP transcription factor family. C/EBP has three isoforms that include C/EBPβ, LAP, and LIP (35 kD, 32 kD, and 20 kD, respectively). This protein is localized in the nucleus and functions as a transcription factor in immune, inflammatory, acute-phase, cytokine, collagen type I gene expression. It is upregulated by growth hormones and has been shown to interact with CEBP-α, CEBP-δ, CEBP-γ, CEBP-ε, and CEBP-ζ. The C/EBP β protein can be modified by phosphorylation and ubiquitination. The 1H7 monoclonal antibody has been reported to be useful for Western blotting, immunoprecipitation, and immunofluorescence of mouse and rat C/EBP β, LIP, and LAP isoforms. The 1H7 antibody does not recognize human C/EBP β, LIP or LAP.

Product Details

Verified Reactivity	Mouse, Rat
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant LIP
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	WB - *Quality tested* ChIP, IP, ICC - *Reported in the literature, not verified in house*
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting. Western blotting, suggested working dilution(s): Use 5 µg antibody per 5 mL antibody dilution buffer for each mini-gel. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Recognizes three mouse isoforms: C/EBP ß, LAP, LIP. Does not cross-react with human.
Application References **(PubMed link indicates BioLegend citation)**	1. Su, *et al.* 2003. *J. Biol. Chem.* 278:51150. (ChIP) 2. Blidner AG, *et al.* 2015. *J Immunol.* 194:3452. PubMed
Product Citations	1. Huang JQ, *et al.* 2021. Front Mol Biosci. 8:725275. PubMed 2. Ebert SM, *et al.* 2020. J Biol Chem. 295:2787. PubMed 3. Blidner A, *et al.* 2015. J Immunol. 194:3452. PubMed 4. Sharma N, *et al.* 2021. Front Mol Biosci. 7:603168. PubMed
RRID	AB_315675 (BioLegend Cat. No. 606202)

Antigen Details

Structure	C/EBP transcription factor family, basic leucine zipper, dimer. Isoforms C/EBPβ, LAP, LIP, approximately 35 kD, 32 kD, 20 kD, respectively
Distribution	Nuclear
Function	Transcription factor in immune, inflammatory, acute-phase, cytokine, collagen type I genes
Interaction	CEBP-α, CEBP-β, CEBP-δ, CEBP-γ, CEBP-ε, CEBP-ζ
Modification	Phosphorylation, Ubiquitination
Biology Area	Cell Biology, Transcription Factors
Molecular Family	Nuclear Markers
Antigen References	1. Chang C, *et al.* 1990. *Mol. Cell Biol.* 10:6642. 2. Eaton E, *et al.* 2001. *J. Cell Physiol.* 189:91. 3. Piwien-Pilipuk G, *et al.* 2002. *J. Biol. Chem.* 277:44557. 4. Hattori T, *et al.* 2003. *Oncogene*. 22:1273.
Regulation	Growth hormone
Gene ID	12608 25301

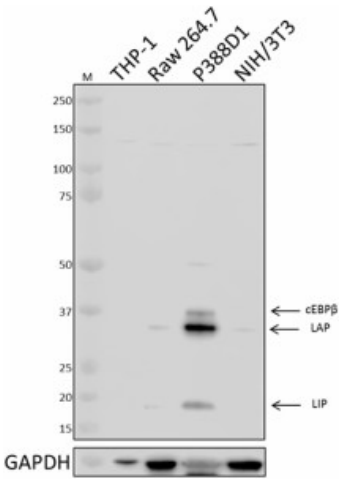
Related Protocols

Western Blotting Protocol

Other Formats

Purified anti-C/EBP β (3 isoforms C/EBP β, LAP, LIP), Biotin anti-C/EBP β (3 isoforms C/EBP β, LAP, LIP)

Product Data



Total cell lysates (15 µg total protein) from THP-1 (negative control), Raw264.7, P388D1 and NIH/3T3 cells were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to a PVDF membrane, and probed with 1.0 µg/mL of Purified anti-cEBP β Antibody, clone 1H7, overnight at 4°C. Proteins were visualized by chemiluminescence detection using HRP goat anti-mouse IgG Antibody (Cat. No. 405306) at a 1:3000 dilution. Direct-Blot™ HRP anti-GAPDH Antibody (Cat. No. 607904) was used as a loading control at a 1:50000 dilution (lower). Lane M: Molecular Weight marker.

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