

ChREBP (P-13): sc-21189

BACKGROUND

ChREBP (for carbohydrate responsive binding protein, also designated Mlx interactor, WBSR14 and MondoB) is a transcription factor that binds to the carbohydrate-responsive element of the L-type pyruvate kinase gene (L-PK). ChREBP is expressed specifically in liver and is activated by high glucose and inhibited by cAMP or a high fat diet. ChREBP is likely critical for the optimal long-term storage of excess carbohydrates as fats, and may contribute to the imbalance between nutrient utilization and storage, which is characteristic of obesity. ChREBP represses E-box-dependent transcription forms and forms heterodimers with Mlx to bind the DNA sequence CACGTG. ChREBP is encoded by the WBSR14 gene, which is located within the Williams-Beuren syndrome (WBS) deletion at chromosome 7q11.23. WBS is a neuro-developmental disorder affecting several systems. Loss of the encoded transcription factor may contribute to the developmental symptoms found in WBS.

CHROMOSOMAL LOCATION

Genetic locus: MLX1PL (human) mapping to 7q11.23; Mlx1pl (mouse) mapping to 5 G2.

SOURCE

ChREBP (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ChREBP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-21189 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-21189 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

ChREBP (P-13) is recommended for detection of ChREBP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ChREBP siRNA (h): sc-38617, ChREBP siRNA (m): sc-38618, ChREBP shRNA Plasmid (h): sc-38617-SH, ChREBP shRNA Plasmid (m): sc-38618-SH, ChREBP shRNA (h) Lentiviral Particles: sc-38617-V and ChREBP shRNA (m) Lentiviral Particles: sc-38618-V.

Molecular Weight of ChREBP splice variants: 62/78/91/93 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

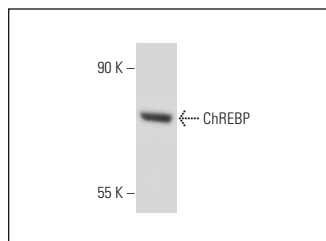
RESEARCH USE

For research use only, not for use in diagnostic procedures.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



ChREBP (P-13): sc-21189. Western blot analysis of ChREBP expression in NIH/3T3 whole cell lysate.

SELECT PRODUCT CITATIONS

- Dentin, R., et al. 2005. Polyunsaturated fatty acids suppress glycolytic and lipogenic genes through the inhibition of ChREBP nuclear protein translocation. *J. Clin. Invest.* 116: 2843-2854.
- Cha-Molstad, H., et al. 2009. Glucose-stimulated expression of TXNIP is mediated by CHREBP, p300 and histone H4 acetylation in pancreatic β cells. *J. Biol. Chem.* 284: 16898-16905.
- Yu, F. and Luo, Y. 2009. Tandem ChoRE and CCAAT motifs and associated factors regulate Txnip expression in response to glucose or adenosine-containing molecules. *PLoS ONE* 4: e8397.
- Boergesen, M., et al. 2011. ChREBP mediates glucose repression of peroxisome proliferator-activated receptor α expression in pancreatic β -cells. *J. Biol. Chem.* 286: 13214-13225.
- Del Pozo, C.H., et al. 2011. ChREBP expression in the liver, adipose tissue and differentiated preadipocytes in human obesity. *Biochim. Biophys. Acta* 1811: 1194-1200.
- Perttilä, J., et al. 2012. PNPLA3 is regulated by glucose in human hepatocytes, and its I148M mutant slows down triglyceride hydrolysis. *Am. J. Physiol. Endocrinol. Metab.* 302: E1063-E1069.
- Janevski, M., et al. 2012. Fructose containing sugars modulate mRNA of lipogenic genes ACC and FAS and protein levels of transcription factors ChREBP and SREBP1c with no effect on body weight or liver fat. *Food Funct.* 3: 141-149.

MONOS
Satisfaction
Guaranteed

Try **ChREBP (5D12D1): sc-293171**, our highly recommended monoclonal alternative to ChREBP (P-13).