

ChREBP (H-300): sc-33763

BACKGROUND

ChREBP (for carbohydrate responsive binding protein, also designated Mlx interactor, WBSCR14 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 WBSCR14 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.

REFERENCES

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3. Kawaguchi, T., Takenoshita, M., Kabashima, T. and Uyeda, K. 2001. Glucose and cAMP regulate the L-type pyruvate kinase gene by phosphorylation/dephosphorylation of the carbohydrate response element binding protein. *Proc. Natl. Acad. Sci. USA* 98: 13710-13715.
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5. Kawaguchi, T., Osatomi, K., Yamashita, H., Kabashima, T. and Uyeda, K. 2002. Mechanism for fatty acid "sparing" effect on glucose-induced transcription: regulation of carbohydrate-responsive element-binding protein by AMP-activated protein kinase. *J. Biol. Chem.* 277: 3829-3835.

CHROMOSOMAL LOCATION

Genetic locus: MLXIPL (human) mapping to 7q11.23.

SOURCE

ChREBP (H-300) is a rabbit polyclonal antibody raised against amino acids 509-688 mapping within an internal region 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.

APPLICATIONS

ChREBP (H-300) is recommended for detection of all ChREBP isoforms of 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).

ChREBP (H-300) is also recommended for detection of all ChREBP isoforms in additional species, including equine and canine.

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

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

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **ChREBP (5D12D1): sc-293171**, our highly recommended monoclonal alternative to ChREBP (H-300).