# **Product Datasheet**

# CHREBP Antibody (2D9NB) - BSA Free NBP2-44307

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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## NBP2-44307

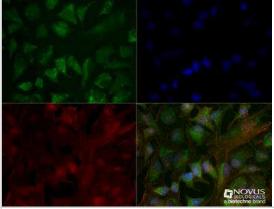
CHREBP Antibody (2D9NB) - BSA Free

CHREBP Antibody (2D9NB) - BSA Free	
Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	2D9NB
Preservative	0.02% Sodium Azide
Isotype	IgG2b Kappa
Purity	Protein G purified
Buffer	PBS
Product Description	
Host	Mouse
Gene ID	51085
Gene Symbol	MLXIPL
Species	Human, Mouse, Rat
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 31289120). Use in Rat reported in scientific literature (PMID:19363290).
Immunogen	Partial recombinant human ChREBP protein between amino acids 600-800. [Uniprot: Q9NP71]
Product Application Details	
Applications	Western Blot, Chromatin Immunoprecipitation, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Chromatin Immunoprecipitation (ChIP)
Recommended Dilutions	Western Blot 1:500 ug/ml, Chromatin Immunoprecipitation reported in scientific literature (PMID 31289120), Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 1:200, Chromatin Immunoprecipitation (ChIP)

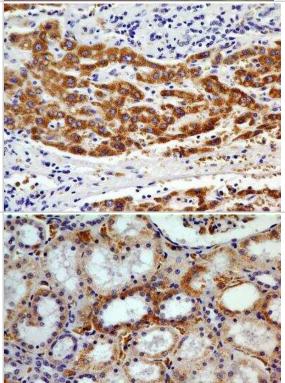


#### **Images**

Immunocytochemistry/Immunofluorescence: CHREBP Antibody (2D9NB) [NBP2-44307] - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton X-100. The cells were incubated with CHREBP (2D9NB) at a 1:100 dilution overnight at 4C and detected with DyLight 488 (Green) at a 1:500 dilution. Actin was detected with Phalloidin 568 (Red) at a 1:200 dilution. Nuclei were detected with DAPI (Blue) at 2.0 ug/ml in 1X PBS. Cells were imaged using a 40X objective.



Immunohistochemistry-Paraffin: CHREBP Antibody (2D9NB) [NBP2-44307] - Analysis of a FFPE tissue section of human hepatocellular carcinoma using 1:200 dilution of CHREBP antibody (clone 2D9NB). The antibody generated a diffused to punctate staining pattern in the cytoplasm of cancer cells. Some cells depicted nuclear positivity also while the stroma was largely negative for CHREBP expression.



Immunohistochemistry-Paraffin: CHREBP Antibody (2D9NB) [NBP2-44307] - Analysis of a FFPE tissue section of normal human kidney using 1:200 dilution of CHREBP antibody (clone 2D9NB). The antibody generated a diffused to punctate staining pattern mainly in the cytoplasm (but in some nuclei also) of cuboidal epithelial cells of various ducts and tubules.

### **Publications**

Song Z, Xiaoli AM, Li Y et al. The conserved Mediator subunit Cyclin C (CCNC) is required for brown adipocyte development and lipid accumulation Molecular metabolism 2022-07-18 [PMID: 35863637] (WB, Mouse)

Kammoun H L, Chabanon H et al. GRP78 expression inhibits insulin and ER stress-induced SREBP-1c activation and reduces hepatic steatosis in mice. J Clin Invest 2009-01-05 [PMID: 19363290] (WB, Rat)

Butler J A, Hagen T M et al. Lipoic acid improves hypertriglyceridemia by stimulating triacylglycerol clearance and downregulating liver triacylglycerol secretion. Arch Biochem Biophys 2009-01-05 [PMID: 19232511] (WB, Rat)

Ly NH, Maekawa T, Yoshida K et al. RNA-Sequencing Analysis of Paternal Low-Protein Diet-Induced Gene Expression Change in Mouse Offspring Adipocytes G3 (Bethesda) 2019-07-09 [PMID: 31289120] (Chemotaxis, Mouse)



#### **Procedures**

# Immunocytochemistry/Immunofluorescence protocol for CHREBP Antibody (NBP2-44307) CHREBP Antibody (2D9NB):

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

- 1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
- 2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
- 3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
- 4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
- 5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
- 6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
- 7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
- 8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
- 9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.
- \*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.



#### Immunohistochemistry-Paraffin protocol for CHREBP Antibody (NBP2-44307)

CHREBP Antibody (2D9NB):

- 1. Deparaffinize the tissue sections by immersing the slides in Xylene with two changes for 10 min each. Sections should not get dried at any stage from this point.
- 2. Rehydrate the tissue sections by immersing the slides in decreasing grades of ethanol as follows:
- a. Immerse in 100% ethanol with 2 changes for 5 minutes each
- b. Immerse in 95% ethanol with 2 changes for 5 minutes each
- c. Immerse in 90% ethanol for 5 minutes
- d. Immerse in 70% ethanol for 5 minutes
- e. Immerse in 50% ethanol for 5 minutes
- f. Immerse in distilled water for 5 minutes
- 3. Antigen Retrieval (Microwave Method):
- a. Immerse the slides in a microwave compatible tray containing 10 mM Sodium Citrate buffer (pH 6.0) with 0.05% Tween 20.
- b. Boil the slides and maintain the sub-boiling temperature for 5 minutes in the microwave. Thereafter, take out the tray very carefully and cool it at room temperature (RT) for about 30 minutes.
- c. Wash the slides 3 times, 3 minutes each by immersing them in TBST (Tris Buffered Saline having 0.05% Tween 20).
- 4. Quenching of Endogenous Peroxidase:
- a. Incubate the slides in 3% hydrogen peroxide prepared in methanol for 15 minutes (at RT, in dark conditions).
- b. Wash the slides in TBST 3 times, 3 minutes each.
- Protein Blocking:
- a. Incubate the sections with background sniper solution at RT for 15 minutes (Biocare Medicals, USA).
- b. Wash the sections 3 times, 3 min each by immersing the slides in TBST.
- 6. Primary Antibody:
- a. Dilute the primary antibody at 5ug/ml concentration using PBS as a diluent.
- b. Incubate the sections with diluted primary antibody for 90 minutes at RT in a humidified chamber.
- c. Thereafter, wash the slides 4 times, 5 minutes each with TBST.
- 7. Probe (Secondary Reagent):
- a. Incubate with MACH 1 Mouse probe for 15 minutes at RT.
- b. Incubate for 30 min at room temperature with HRP-Polymer (Biocare Medical, USA).
- c. Wash the slides with TBST 4 times, 5 minutes each
- 8. Chromogen:
- a. Mix 32ul of DAB Chromogen with 1 ml of DAB substrate buffer (Biocare Medical, USA).
- b. Apply 200ul DAB mixture/section and incubate at RT in dark conditions (few seconds 5 minutes).
- c. As soon as an appropriate color develops, rinse the slides with deionized water (2-3 brief rinses).
- 9. Counter stain:
- a. Counter stain with Hematoxylin for 30 seconds (Vector Labs, USA).
- b. Wash in deionized water for 1-2 minutes to clear the extra stain.
- c. Incubate the slides in bluing solution or Scott's water twice for 2 minutes each time.
- 10. Dehydrate the sections in increasing grades of alcohols:
- a. 50% alcohol for 1 minute
- b. 70% for 1 minute
- c. 90% for 1 minute
- d. 95% for 1 minute
- e. 100% for 1 minute
- f. Xylene with 2 changes for 2 minutes each
- 11. Mount with DPX mount and cover-slip glass (Fisher Scientific, USA), carefully not allowing any air bubbles to enter.

NOTE:- This protocol is provided as a reference tool only. Depending upon the type of tissues /tissue processing and reagents employed, the end user will need to optimize the final conditions for achieving an expected staining.



#### Western Blot protocol for CHREBP Antibody (NBP2-44307)

CHREBP Antibody (2D9NB):

Western Blot Protocol

- 1. Perform SDS-PAGE on samples to be analyzed, loading 25 ug of total protein per lane.
- 2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
- 3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
- Rinse the blot.
- 5. Block the membrane using standard blocking buffer for at least 1 hour.
- 6. Wash the membrane in wash buffer three times for 10 minutes each.
- 7. Dilute anti-CHREBP (2D9NB) primary antibody in blocking buffer and incubate 1 hour at room temperature.
- 8. Wash the membrane in wash buffer three times for 10 minutes each.
- 9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
- 10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
- 11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.





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## **Products Related to NBP2-44307**

HAF007 Goat anti-Mouse IgG Secondary Antibody [HRP]

NB720-B Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43317-0.5mg Mouse IgG2b Kappa Light Chain Isotype Control (MG2b)

NBP2-44307B CHREBP Antibody (2D9NB) [Biotin]

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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