# abcam

## Product datasheet

# SREBP-2 Transcription Factor Assay Kit ab133111

4 References 画像数 3

#### 製品の概要

製品名 SREBP-2 Transcription Factor Assay Kit

**検出方法** Colorimetric

サンプルの種類 Adherent cells, Suspension cells, Nuclear Extracts

アッセイタイプ Semi-quantitative

種交差性 交差種: Human

交差が予測される動物種: Mammals

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製品の概要 Abcam's SREBP-2 Transcription Factor Assay Kit (ab133111) is a non-radioactive, sensitive

method for detecting specific transcription factor DNA binding activity in nuclear extracts and

whole cell lysates.

A 96-well enzyme-linked immunosorbent assay (ELISA) replaces the cumbersome radioactive electrophoretic mobility shift assay (EMSA). A specific double stranded DNA (dsDNA) sequence containing the SREBP response element is immobilized to the wells of a 96-well plate. SREBP contained in a nuclear extract, binds specifically to the SREBP response element. SREBP is detected by addition of a specific primary antibody directed against SREBP. A secondary antibody conjugated to HRP is added to provide a sensitive colorimetric readout at 450 nm.

特記事項 Lipid homeostasis in vertebrate cells is regulated by a family of transcription factors called sterol

regulatory elements binding proteins (SREBPs). SREBPs directly activate the expression of over

30 gened involved in teh synthesis and uptake of cholesterol, fatty cids, triglycerides and

phopholipids. SREBP-2 activates cholesterol synthesis by upregulating expression of HMG-CoA

reductase.

試験プラットフォーム Microplate reader

#### 製品の特性

保存方法 Please refer to protocols.

内容	96 tests
96-Well Plate Cover	1 unit
Polysorbate 20	1 vial

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内容	96 tests
Transcription Factor Antibody Binding Buffer (10X)	1 x 3ml
Transcription Factor Binding Assay Buffer (4X)	1 x 3ml
Transcription Factor Developing Solution	1 x 12ml
Transcription Factor Goat Anti-Rabbit HRP Conjugate	1 x 100µl
Transcription Factor Reagent A	1 x 120µl
Transcription Factor SREBP 96-Well Strip Plate	1 unit
Transcription Factor SREBP Competitor dsDNA	1 vial
Transcription Factor SREBP-2 Positive Control	1 vial
Transcription Factor SREBP-2 Primary Antibody	1 vial
Transcription Factor Stop Solution	1 x 12ml
Wash Buffer Concentrate (400X)	1 x 5ml

機能 Transcriptional activator required for lipid homeostasis. Regulates transcription of the LDL

receptor gene as well as the cholesterol and to a lesser degree the fatty acid synthesis pathway (By similarity). Binds the sterol regulatory element 1 (SRE-1) (5'-ATCACCCCAC-3') found in the

flanking region of the LDRL and HMG-CoA synthase genes.

組織特異性 Ubiquitously expressed in adult and fetal tissues.

**配列類似性** Belongs to the SREBP family.

Contains 1 basic helix-loop-helix (bHLH) domain.

翻訳後修飾 At low cholesterol the SCAP/SREBP complex is recruited into COPII vesicles for export from the

ER. In the Golgi complex SREBPs are cleaved sequentially by site-1 and site-2 protease. The first

cleavage by site-1 protease occurs within the luminal loop, the second cleavage by site-2

protease occurs within the first transmembrane domain and releases the transcription factor from the Golgi membrane. Apoptosis triggers cleavage by the cysteine proteases caspase-3 and

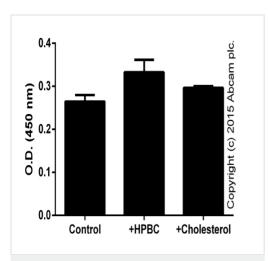
caspase-7.

細胞内局在 Nucleus and Endoplasmic reticulum membrane. Golgi apparatus membrane. Cytoplasmic vesicle

> COPIl-coated vesicle membrane. Moves from the endoplasmic reticulum to the Golgi in the

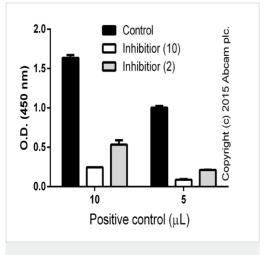
absence of sterols.

### 画像



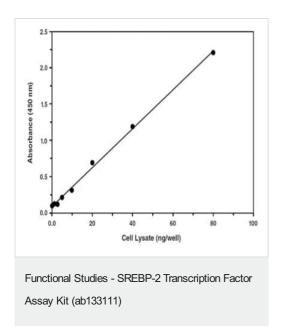
ELISA ab133111 SREBP-2 Transcription Factor Assay Kit

HepG2 cells were grown in protein free hybridoma medium overnight (Life Technologies), followed by a 30 minutes incubation with the addition of 1% (2-Hydroxypropyl)- $\beta$ -cyclodextrin (Sigma) or with the supplement of liqued cholesterol (Life Technologies). 10 uL of nuclear extracts (<u>ab113474</u>) were tested, corresponding to 2.5e5 cells per well.



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Positive control (10 or 5 uL) with or without inhibitor (10 or 2 uL) (duplicates; +/- SD).



Example of typical standard curve obtained using ab133111.

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