

SREBP-2 Transcription Factor Assay Kit ab133111

[4 References](#) [3 Images](#)

Overview

Product name	SREBP-2 Transcription Factor Assay Kit
Detection method	Colorimetric
Sample type	Adherent cells, Suspension cells, Nuclear Extracts
Assay type	Semi-quantitative
Species reactivity	Reacts with: Human

Predicted to work with: Mammals 

Product overview

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.

Notes

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 genes involved in the synthesis and uptake of cholesterol, fatty acids, triglycerides and phospholipids. SREBP-2 activates cholesterol synthesis by upregulating expression of HMG-CoA reductase.

Platform

Microplate reader

Properties

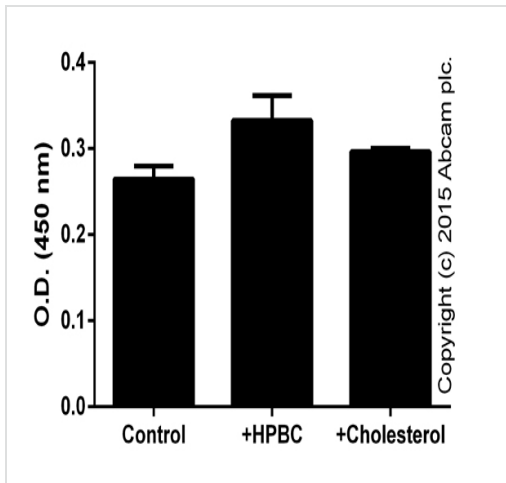
Storage instructions Please refer to protocols.

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

Components	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

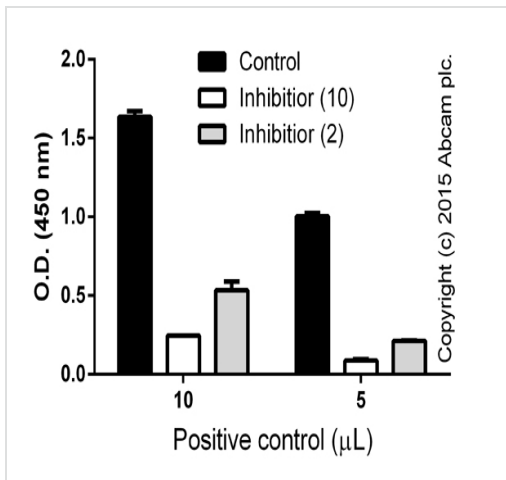
Function	Transcriptional activator required for lipid homeostasis. Regulates transcription of the LDL receptor gene as well as the cholesterol and to a lesser degree the fatty acid synthesis pathway (By similarity). Binds the sterol regulatory element 1 (SRE-1) (5'-ATCACCCAC-3') found in the flanking region of the LDRL and HMG-CoA synthase genes.
Tissue specificity	Ubiquitously expressed in adult and fetal tissues.
Sequence similarities	Belongs to the SREBP family. Contains 1 basic helix-loop-helix (bHLH) domain.
Post-translational modifications	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.
Cellular localization	Nucleus and Endoplasmic reticulum membrane. Golgi apparatus membrane. Cytoplasmic vesicle > COPII-coated vesicle membrane. Moves from the endoplasmic reticulum to the Golgi in the absence of sterols.

Images



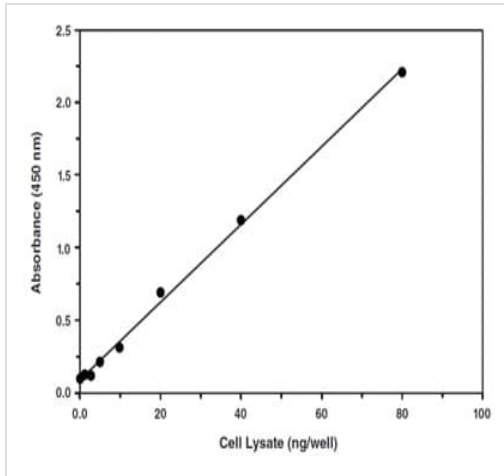
ELISA ab133111 SREBP-2 Transcription Factor Assay Kit

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)- β -cyclodextrin (Sigma) or with the supplement of liqued cholesterol (Life Technologies). 10 μ L of nuclear extracts ([ab113474](#)) were tested, corresponding to 2.5e5 cells per well.



ELISA ab133111 SREBP-2 Transcription Factor Assay Kit

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



Example of typical standard curve obtained using ab133111.

Functional Studies - SREBP-2 Transcription Factor
Assay Kit (ab133111)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors