Datasheet for ABIN5526704

TFEB ELISA Kit

2 Images | 2 Publications

Go to Product page

Overview

Quantity:	96 tests
Target:	TFEB
Reactivity:	Human
Method Type:	DNA-Binding ELISA
Application:	ELISA

Product Details

Purpose:	Human TFEB Transcription Factor Activity Assay. This assay uses a dsDNA coated plate with canonical TFEB binding sequences to semi-quantitatively detect active TFEB in lysates or nuclear extracts. Only available in North America.
Sample Type:	Cell Lysate, Nuclear Extract
Analytical Method:	Semi-Quantitative
Detection Method:	Colorimetric
Specificity:	The olionucleotide/antibody pair provided in this kit recognizes human TFEB in whole lysates and nuclear extracts.
Characteristics:	• Specific transcription factor-DNA binding assay • Perfect alternative to EMSA • Easy to perform in an ELISA format • Non-radioactive assay • High throughput (96 well plate format) • Assay can be completed within 5 hours

Product Details

Components:	• 96-well Strip Microplate pre-coated with DNA probes • DNA Binding Buffer • Positive Control Sample • Specific Competitor DNA probe • Non-specific Competitor DNA probe • Assay Reagent • DTT • Wash Buffer • Primary Antibody • HRP-conjugated Secondary Antibody • TMB One-Step Substrate Reagent • Stop Solution
Material not included:	• Distilled or deionized water • 100 mL and 1 liter graduated cylinders • Tubes to prepare sample dilutions • Absorbent paper • Precision pipettes to deliver 2 µL to 1 mL volumes • Adjustable 1-25 mL pipettes for reagent preparation • Benchtop rocker or shaker • Microplate reader capable of measuring absorbance at 450 nm

Target Details

Target:	TFEB
Alternative Name:	TFEB (TFEB Products)
Gene ID:	7942
UniProt:	P19484

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Plate:	Pre-coated
Protocol:	1. Prepare all reagents and samples as instructed in the manual. 2. Add 100 µL of sample or positive control to each well. 3. Incubate 2 h at RT or O/N at 4 °C. 4. Add 100 µL of prepared primary antibody to each well. 5. Incubate 1 h at RT. 6. Add 100 µL of prepared HRP-secondary antibody to each well.

Application Details

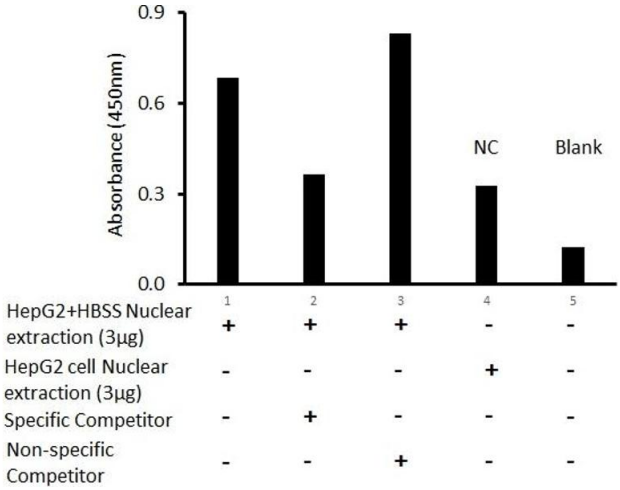
	7. Incubate 1 h at RT. 8. Add 100 µL of TMB One-Step Substrate Reagent to each well. 9. Incubate 30 min at RT. 10. Add 50 µL of Stop Solution to each well. 11. Read at 450 nm immediately.
Restrictions:	For Research Use only

Handling

Storage:	-20 °C
Storage Comment:	Upon receipt, the positive control should be removed and stored at -20° or -80°C. The remainder of the kit can be stored for up to 6 months at 2-8°C from the date of shipment. Opened Microplate Wells or reagents may be stored for up to 1 month at 2° to 8°C. Return unused wells to the pouch containing desiccant pack, reseal along entire edge. Note: The kit can be used within one year if the whole kit is stored at -20°C upon receipt. Avoid repeated freeze-thaw cycles.
Expiry Date:	6 months

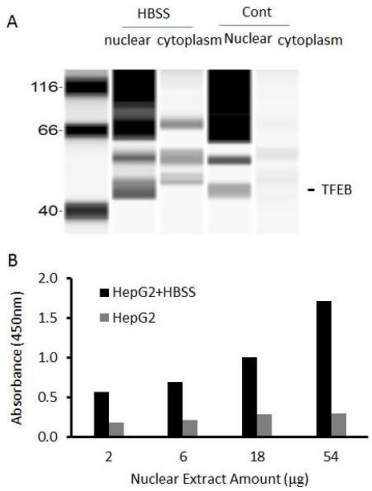
Publications

Product cited in:	Mlejnek, Havlasek, Pastvova, Dolezel, Dostalova: "Lysosomal sequestration of weak base drugs, lysosomal biogenesis, and cell cycle alteration." in: **Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie**, Vol. 153, pp. 113328, (2022) (PubMed). Kim, Kim, Kim, Kim, Han, Byeon, Lee, Kim: "HSPA5 negatively regulates lysosomal activity through ubiquitination of MUL1 in head and neck cancer." in: **Autophagy**, Vol. 14, Issue 3, pp. 385-403, (2019) (PubMed).



Activity Assay

Image 1. Transcription factor activity assay of TFEB from nuclear extracts of HepG2 cells or HepG2 cells treated with HBSS medium for 4 hr with the specific competitor or non-specific competitor. The result shows specific binding of TFEB to the TFEB conserved binding site.



Activity Assay

Image 2. Transcription factor activity assay of TFEB from nuclear extracts of HepG2 cells or HepG2 cells treated with HBSS medium for 4 hr. After stimulation, activated TFEB is translocated into the nucleus where it binds with its corresponding DNA. A. Western-blot result of TFEB from cytoplasm and nuclear fractions. B. Transcription factor activity assay of TFEB from nuclear fractions with the TFEB Transcription Factor-Activity Assay Kit.