Datasheet for ABIN5526730

# NRF2 ELISA Kit

2 Images

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## Overview

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| Quantity: | 96 tests |
| Target: | NRF2 (NFE2L2) |
| Reactivity: | Human |
| Method Type: | DNA-Binding ELISA |
| Application: | ELISA |

## Product Details

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| Purpose: | Human NRF2 Transcription Factor Activity Assay. This assay uses a dsDNA coated plate with canonical NRF2 binding sequences to semi-quantitatively detect active NRF2 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 NRF2 in whole lysates and nuclear extracts. |
| Characteristics: | • Specific transcription factor-DNA binding assay<br>• Perfect alternative to EMSA<br>• Easy to perform in an ELISA format<br>• Non-radioactive assay<br>• High throughput (96 well plate format)<br>• Assay can be completed within 5 hours |

## Product Details

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

## Target Details

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| Target: | NRF2 (NFE2L2) |
| Alternative Name: | Nrf2 (NFE2L2 Products) |
| Gene ID: | 4780 |
| UniProt: | Q16236 |
| Pathways: | ER-Nucleus Signaling, Negative Regulation of intrinsic apoptotic Signaling |

## Application Details

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| 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.<br>2. Add 100 µL of sample or positive control to each well.<br>3. Incubate 2 h at RT or O/N at 4 °C.<br>4. Add 100 µL of prepared primary antibody to each well.<br>5. Incubate 1 h at RT.<br>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.

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| Restrictions: | For Research Use only |

## Handling

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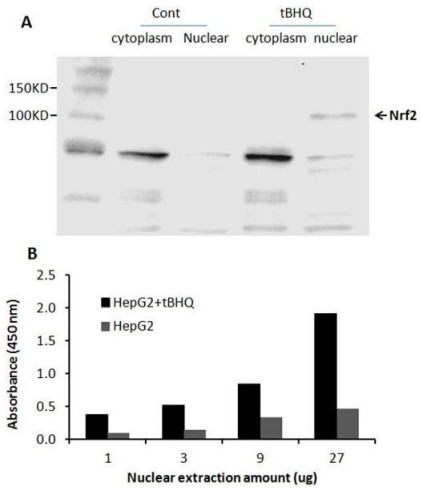
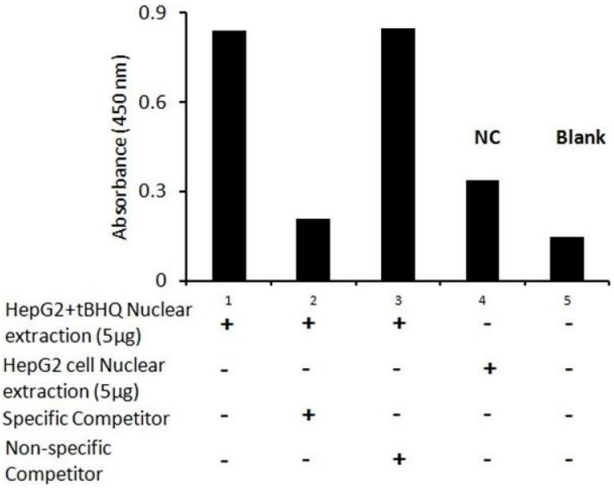
| Storage: | -20 °C |
| Storage Comment: | Upon receipt, the positive control should be removed and stored at -20° or -80°C. The remainder of the kit can be stored for up to 6 months at 2-8°C from the date of shipment. Opened Microplate Wells or reagents may be stored for up to 1 month at 2° to 8°C. 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 |

## Images




**Activity Assay**

**Image 1.** Transcription factor activity assay of NRF2 from nuclear extracts of HepG2 cells or HepG2 cells treated with tBHQ (90uM) for 24 hr. After stimulation activated NRF2 is translocated into the nucleus where it binds with its corresponding DNA. A. Western-blot result of NRF2 from cytoplasmic and nuclear fractions. B. Transcription factor activity assay of NRF2 from nuclear fractions with the NRF2 Transcription Factor Activity Assay Kit.




## Activity Assay

**Image 2.** Transcription factor activity assay of NRF2 from nuclear extracts of HepG2 cells or HepG2 cells treated with tBHQ (90uM) for 24 hr with the specific competitor or non-specific competitor. The result shows specific binding of NRF2 to the ARE binding site detected by using the NRF2 Transcription Factor Activity Assay Kit.