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# Datasheet for ABIN2866286

## **NRF2 ELISA Kit**



#### Overview

Quantity:	96 tests
Target:	NRF2 (NFE2L2)
Reactivity:	Human
Method Type:	DNA-Binding ELISA
Application:	ELISA
Product Details	
Purpose:	DNA-binding ELISA that facilitate the study of transcription factor activation in mammalien tissue and cell culture extracts.
Brand:	TransAM®
Sample Type:	Cell Extracts, Tissue Samples
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	TransAM Nrf2 Kits are tested for sensitivity in detecting Nrf2 activation.
Characteristics:	Transcription factors are DNA-binding proteins that tightly regulate gene expression. They consist of two distinct domains - one that displays high affinity for a specific DNA sequence and one that confers transcriptional activity. Transcription factors are activated by phosphorylation of specific residues or by processing bound inhibitory proteins. Understanding and quantifying transcription factors is essential for the study of cell functions in relation to differentiation, brain activity, immune response, inflammation and various disease states.  TransAM® Kits are sensitive, non-radioactive transcription factor ELISA kits that facilitate the

### **Product Details**

study of transcription factor activation in mammalian tissue and cell extracts.

TransAM® Kits are DNA-binding ELISAs that facilitate the study of transcription factor activation in mammalian tissue and cell extracts. Each kit includes a 96-stripwell plate in which multiple copies of a specific double-stranded oligonucleotide have been immobilized. When nuclear or whole-cell extract is added, activated transcription factor of interest binds the oligonucleotide at its consensus binding site and is quantified using the included antibody, which is specific for the bound, active form of the transcription factor being studied.

#### Components:

One or five 96-well plate(s) with plate sealer(s), primary antibody, HRP-conjugated secondary antibody, wild-type and mutated competitor oligonucleotides, positive control cell extract, DTT, Protease Inhibitor Cocktail, Lysis, Binding, 10X Washing and 10X Antibody Binding Buffers, and Developing and Stop Solutions.

#### Target Details

Target:	NRF2 (NFE2L2)
Alternative Name:	Nrf2 (NFE2L2 Products)
Pathways:	ER-Nucleus Signaling, Negative Regulation of intrinsic apoptotic Signaling

## **Application Details**

Application Details	
Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Nuclear extracts prepared from untreated and D,L Sulforaphane treated Cos-7 cells were diluted
	to 0.625-10 µg/well and assayed using the TransAM Nrf2 Kit. The ratio of the signals from the
	stimulated over unstimulated cells must be above 4. Lot No. 12415012 was developed for 15
	minutes. It gave a ratio of 4.8 for 5 µg of cell extract (Figure 1). This ratio may vary depending
	on the basal level of Nrf2 activation in a given cell type. TransAM Nrf2 Kits are also tested for
	specificity in detecting Nrf2 activation. TransAM Nrf2 assays are performed in the presence of
	an excess of oligonucleotide containing a wild-type or mutated Nrf2 consensus binding site
	(Figure 2). At 20X excess, the wild-type oligonucleotide prevents Nrf2 binding to the probe
	immobilized on the plate. Conversely, the mutated oligonucleotide has no effect on Nrf2
	binding.
Assay Time:	5 h
Plate:	Pre-coated
Restrictions:	For Research Use only

# Handling

Storage:	4 °C/-20 °C/-80 °C
Storage Comment:	Except for the cell extract that must be kept at -80°C, the kit components can be stored at -20°C prior to first use. Then, we recommend storing the kit at 4°C except for the oligonucleotides, DTT, Herring sperm DNA and Protease Inhibitor Cocktail that should be kept at -20°C, and the cell extract at -80°C. This product is guaranteed for 6 months from date of receipt.
Expiry Date:	6 months