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## Datasheet for ABIN2866271 **HIF1A ELISA Kit**

### Overview

Quantity:	96 tests
Target:	HIF1A
Reactivity:	Human
Method Type:	DNA-Binding ELISA
Application:	ELISA

### Product Details

Purpose:	DNA-binding ELISA that facilitate the study of transcription factor activation in mammalian tissue and cell culture extracts.
Brand:	TransAM®
Sample Type:	Cell Extracts, Tissue Samples
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	TransAM HIF-1 Kits are tested for sensitivity in detecting HIF-1 in nuclear extracts from HeLa cells that are either untreated or treated with CoCl <sub>2</sub> .
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.

## Product Details

TransAM® Kits are sensitive, non-radioactive transcription factor ELISA kits that facilitate the 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.
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## Target Details

Target:	HIF1A
Alternative Name:	Hif-1 ( <a href="#">HIF1A Products</a> )
Pathways:	<a href="#">Positive Regulation of Peptide Hormone Secretion</a> , <a href="#">Regulation of Hormone Metabolic Process</a> , <a href="#">Regulation of Hormone Biosynthetic Process</a> , <a href="#">Cellular Response to Molecule of Bacterial Origin</a> , <a href="#">Carbohydrate Homeostasis</a> , <a href="#">Transition Metal Ion Homeostasis</a> , <a href="#">Tube Formation</a> , <a href="#">Regulation of Carbohydrate Metabolic Process</a> , <a href="#">Signaling Events mediated by VEGFR1 and VEGFR2</a> , <a href="#">VEGFR1 Specific Signals</a> , <a href="#">Warburg Effect</a>

## Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	<p>These extracts are diluted down to 1.25 µg/well and assayed using the TransAM HIF-1 Kit. The ratio of the signals from the treated over the untreated cells must be above 4. This lot was developed for 10 minutes. It gave a ratio of 47.8 at 10ug/well. (Figure 1). The basal level of HIF-1 expression, and this ratio, may vary depending on the cell type tested and the treatment used..</p> <p>TransAM HIF-1 Kits are also tested for specificity in detecting HIF activation. TransAM HIF-1 assays are performed in the presence of an excess of oligonucleotide containing a wild-type or mutated HIF consensus binding site (Figure 2). At 20X excess, the wild-type oligonucleotide prevents HIF binding to the probe immobilized on the plate. Conversely, the mutated oligonucleotide has little effect on HIF binding.</p>

## Application Details

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Assay Time:	5 h
Plate:	Pre-coated
Restrictions:	For Research Use only

## Handling

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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 HIF antibody, oligonucleotides, DTT 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