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Datasheet for ABIN2866292  
**Sp1/sp3 ELISA Kit**

### Overview

Quantity:	96 tests
Target:	Sp1/sp3
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 Sp1/Sp3 Kits are tested for sensitivity in detecting Sp1 and Sp3 in untreated and H <sub>2</sub> O <sub>2</sub> post-treated nuclear extracts from MCF-7 cells.
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

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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.

## Target Details

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**Target:** Sp1/sp3

## Application Details

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**Application Notes:** Optimal working dilution should be determined by the investigator.

**Comment:** These extracts are diluted down to 0.625 µg/well and assayed using the TransAM Sp1/Sp3 Kit. The ratio of the signals from the untreated over the H<sub>2</sub>O<sub>2</sub> post-treated extracts must be above 2. Lot No. 02914002 was developed for 1 minutes. It gave a ratio of 2.3 (Figure 1). The endogenous level of Sp3 expression may vary depending on the cell type tested and the treatment used to inactivate Sp3. TransAM Sp1/Sp3 Kits are also tested for specificity in detecting Sp1 and Sp3 activity. TransAM assays are performed in the presence of an excess of oligonucleotide containing a wild-type or mutated Sp1 consensus binding site (Figure 2). At 20X excess, the wild-type oligonucleotide prevents Sp1 and Sp3 binding to the probe immobilized on the plate. Conversely, the mutated oligonucleotide has little effect on Sp1 and Sp3 binding. (For Sp1 data, please see the TransAM Sp1 Kit Certificate of Analysis.)

**Assay Time:** 5 h

**Plate:** Pre-coated

**Restrictions:** For Research Use only

## Handling

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Storage: 4 °C/-20 °C/-80 °C

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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, Poly[d(I-C)], primary antibody 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.

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Expiry Date: 6 months