Datasheet for ABIN2866262

# CREB1 ELISA Kit

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## Overview

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| Quantity: | 96 tests |
| Target: | CREB1 |
| Reactivity: | Human |
| Method Type: | DNA-Binding ELISA |
| Application: | ELISA |

## Product Details

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| 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 CREB Kits are tested for sensitivity in detecting CREB in nuclear extracts from WI-38 VA13 cells that are either unstimulated or stimulated with forskolin. |
| 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: | CREB1 |
| Alternative Name: | Creb (CREB1 Products) |
| Pathways: | TLR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Thyroid Hormone Synthesis, Activation of Innate immune Response, Myometrial Relaxation and Contraction, Regulation of Cell Size, Toll-Like Receptors Cascades, G-protein mediated Events, Interaction of EGFR with phospholipase C-gamma, Positive Regulation of fat Cell Differentiation |

## 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 CREB Kit. Lot No. 08510002 was developed for 8 minutes. As CREB is constitutively expressed, the signal intensity for unstimulated nuclear extracts may be as high as for extracts from stimulated cells. (Figure 1). The basal level of CREB expression may vary depending on cell type and the stimulation used. TransAM CREB Kits are also tested for specificity in detecting CREB activation. TransAM CREB assays are performed in the presence of an excess of oligonucleotide containing the wild-type or mutated CREB consensus binding site. (Figure 2). At 20X excess, the wild-type oligonucleotide prevents CREB binding to the probe immobilized on the plate. Conversely, the mutated oligonucleotide should have little effect on CREB binding. |

## 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 oligonucleotides, DTT, Protease Inhibitor Cocktail and Herring sperm DNA that should be kept at -20°C, and the cell extract at -80°C. The product is guaranteed for 6 months from date of receipt. |
| Expiry Date: | 6 months |