# Human Apoptosis regulator BAX ELISA Kit

| | |
|---|---|
| **Product Code** | CSB-E09344h |
| **Abbreviation** | BAX |
| **Protein Biological Process 1** | Apoptosis/Autophagy |
| **Target Name** | BCL2-associated X protein |
| **Uniprot No.** | Q07812 |
| **Alias** | BCL2L4, apoptosis regulator BAX |
| **Product Type** | ELISA Kit |
| **Immunogen Species** | Homo sapiens (Human) |
| **Protein Biological Process 3** | Apoptosis |
| **Sample Types** | serum, plasma, tissue homogenates |
| **Detection Range** | 1.25 ng/mL-80 ng/mL |
| **Sensitivity** | 0.312 ng/mL |
| **Assay Time** | 1-5h |
| **Sample Volume** | 50-100ul |
| **Detection Wavelength** | 450 nm |
| **Lead Time** | 3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx. |
| **Research Area** | Cell Biology |
| **Gene Names** | BAX |
| **Tag Info** | quantitative |
| **Protein Description** | Sandwich |
| **Description** | The human BAX ELISA kit (CSB-E09344h) is designed for the quantitative measurement of human BAX protein in serum, plasma, or tissue homogenates. It quantitates human BAX with 0.312 ng/ml sensitivity and shows excellent specificity for human BAX. It uses the bi-antibody sandwich enzyme immunoassay technique. This assay employs a biotin-conjugated BAX antibody that recognizes the analyte bound by the immobilized BAX antibody, forming an antibody-analyte-antibody complex. The immune complex is further detected by avidin-conjugated HRP. The TMB solution is added into the wells and turns blue and finally turns yellow after the addition of the stop solution. Solution color develops in proportion to the amount of BAX in the sample. The O.D. value is measured using a microplate reader at 450 nm and is used to determine the concentration of the human BAX in the sample. |

BAX is one of the pro-apoptotic proteins of the BCL2 gene family that mediates mitochondrial fusion. BAX is essential for mitochondrial fusion in healthy cells. During apoptosis, BAX is recruited and oligomerized at mitochondrial foci. BAX is involved in the formation of pores that enables the mitochondrion to cytochrome c and subsequent activation of caspase cascade release, finally leading to apoptosis.

**Target Details**

This protein belongs to the BCL2 protein family. BCL2 family members form hetero- or homodimers and act as anti- or pro-apoptotic regulators that are involved in a wide variety of cellular activities. This protein forms a heterodimer with BCL2, and functions as an apoptotic activator. This protein is reported to interact with, and increase the opening of, the mitochondrial voltage-dependent anion channel (VDAC), which leads to the loss in membrane potential and the release of cytochrome c. The expression of this gene is regulated by the tumor suppressor P53 and has been shown to be involved in P53-mediated apoptosis. Multiple alternatively spliced transcript variants, which encode different isoforms, have been reported for this gene.

**Product Precision**

Intra-assay Precision (Precision within an assay): CV%<8%
Three samples of known concentration were tested twenty times on one plate to assess.
Inter-assay Precision (Precision between assays): CV%<10%
Three samples of known concentration were tested in twenty assays to assess.

**Linearity**

To assess the linearity of the assay, samples were spiked with high concentrations of human BAX in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

| ? | Sample | Serum(n=4) |
|---|---|---|
| 1:1 | Average % | 95 |
| | Range % | 87-101 |
| 1:2 | Average % | 94 |
| | Range % | 91-103 |
| 1:4 | Average % | 95 |
| | Range % | 92-100 |
| 1:8 | Average % | 94 |
| | Range % | 88-97 |

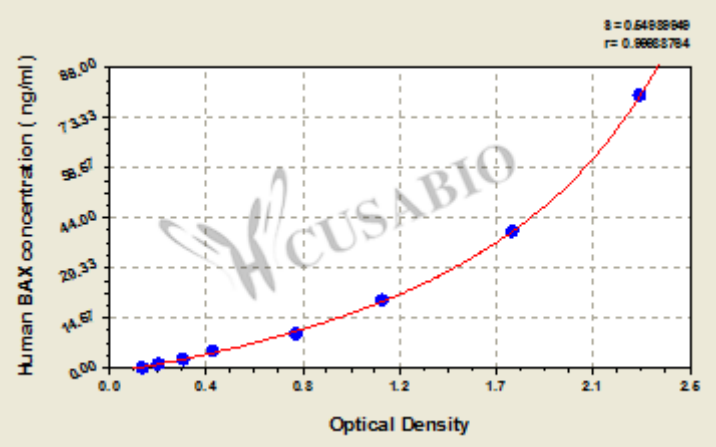
**Recovery**

The recovery of human BAX spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

| Sample Type | Average % Recovery | Range |
|---|---|---|
| Serum (n=5) | 102 | 96-109 |
| EDTA plasma (n=4) | 96 | 90-100 |

**Typical**

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.




| ng/ml | OD1 | OD2 | Average | Corrected |
|---|---|---|---|---|
| 80 | 2.305 | 2.215 | 2.260 | 2.108 |
| 40 | 1.675 | 1.765 | 1.720 | 1.568 |
| 20 | 1.164 | 1.172 | 1.168 | 1.016 |
| 10 | 0.795 | 0.809 | 0.802 | 0.650 |
| 5 | 0.453 | 0.447 | 0.450 | 0.298 |
| 2.5 | 0.322 | 0.336 | 0.329 | 0.177 |
| 1.25 | 0.225 | 0.219 | 0.222 | 0.070 |
| 0 | 0.152 | 0.151 | 0.152 | ? |

**Msds**

{"0":{"fileurl":"https://www.cusabio.com/uploadfile/msds/MSDS CSB-E09344h.pdf","filename":"MSDS"}}