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Datasheet for ABIN7035631

## HMGB1 ELISA Kit

### 1 Image

#### Overview

|                          |                         |
|--------------------------|-------------------------|
| Quantity:                | 96 tests                |
| Target:                  | HMGB1                   |
| Reactivity:              | Human                   |
| Method Type:             | Sandwich ELISA          |
| Detection Range:         | 62.5 pg/mL - 4000 pg/mL |
| Minimum Detection Limit: | 62.5 pg/mL              |
| Application:             | ELISA                   |

#### Product Details

|                    |                                                                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Purpose:           | The kit is an instant sandwich enzyme immunoassay for in vitro quantitative measurement in various sample types.                                |
| Sample Type:       | Plasma, Serum                                                                                                                                   |
| Analytical Method: | Quantitative                                                                                                                                    |
| Detection Method:  | Colorimetric                                                                                                                                    |
| Specificity:       | This assay has high sensitivity and excellent specificity for detection of High Mobility Group Protein 1.                                       |
| Sensitivity:       | 22.5 pg/mL                                                                                                                                      |
| Grade:             | Instant                                                                                                                                         |
| Components:        | <ul style="list-style-type: none"><li>• Pre-coated, ready to use 96-well strip plate, flat bottom</li><li>• Plate sealer for 96 wells</li></ul> |

## Product Details

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- Reference Standard
- Standard Diluent
- Detection Reagent A
- Detection Reagent B
- Assay Diluent A
- Assay Diluent B
- Reagent Diluent (if Detection Reagent is lyophilized)
- TMB Substrate
- Stop Solution
- Wash Buffer (30 x concentrate)
- Instruction manual

## Target Details

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| Target:           | HMGB1                                                                                                                                                                                                                                                                                                                                                                                                     |
| Alternative Name: | High Mobility Group Protein 1 ( <a href="#">HMGB1 Products</a> )                                                                                                                                                                                                                                                                                                                                          |
| Background:       | HMG1, HMG3, SBP1, Sulfoglucuronyl Carbohydrate Binding Protein, Amphoterin, High Mobility Group Box 1 Protein                                                                                                                                                                                                                                                                                             |
| Pathways:         | <a href="#">p53 Signaling</a> , <a href="#">Regulation of Muscle Cell Differentiation</a> , <a href="#">Skeletal Muscle Fiber Development</a> , <a href="#">Positive Regulation of Endopeptidase Activity</a> , <a href="#">Regulation of Carbohydrate Metabolic Process</a> , <a href="#">Toll-Like Receptors Cascades</a> , <a href="#">Smooth Muscle Cell Migration</a> , <a href="#">Inflammasome</a> |

## Application Details

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| Sample Volume:       | 100 µL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Assay Time:          | 1.5 h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Plate:               | Pre-coated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Protocol:            | <ol style="list-style-type: none"><li>1. Prepare all reagents, samples and standards,</li><li>2. Add 100µL standard or sample to each well. Incubate 30 minutes at 37 °C,</li><li>3. Aspirate and add 100µL prepared Detection Reagent A. Incubate 30 minutes at 37 °C,</li><li>4. Aspirate and wash 5 times,</li><li>5. Add 100µL prepared Detection Reagent B. Incubate 10 minutes at 37°C,</li><li>6. Aspirate and wash 5 times,</li><li>7. Add 90µL Substrate Solution. Incubate 10-20 minutes at 37 °C,</li><li>8. Add 50µL Stop Solution. Read at 450nm immediately.</li></ol> |
| Reagent Preparation: | <ol style="list-style-type: none"><li>1. Bring all kit components and samples to room temperature (18-25 °C) before use. If the kit will not be used up in one time, please only take out strips and reagents for present</li></ol>                                                                                                                                                                                                                                                                                                                                                  |

- experiment, and leave the remaining strips and reagents in required condition.
2. Standard - Reconstitute the Standard with 1.0 mL of Standard Diluent, keep for 10 minutes at room temperature, shake gently (not to foam). The concentration of the standard in the stock solution is 2,000pg/mL. Firstly dilute the stock solution to 1,000 pg/mL and the diluted standard serves as the highest standard (1,000 pg/mL). Then prepare 7 tubes containing 0.5 mL Standard Diluent and produce a double dilution series by transferring 500  $\mu$ L each. Mix each tube thoroughly before the next transfer. Set up 7 points of diluted standard such as 1,000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL, and the last microcentrifuge tube with Standard Diluent is the blank as 0pg/mL.
  3. Detection Reagent A and Detection Reagent B - If lyophilized reconstitute the Detection Reagent A with 150 $\mu$ L of Reagent Diluent, keep for 10 minutes at room temperature, shake gently (not to foam). Briefly spin or centrifuge the stock Detection A and Detection B before use. Dilute them to the working concentration 100-fold with Assay Diluent A and B, respectively.
  4. Wash Solution - Dilute 20 mL of Wash Solution concentrate (30x) with 580 mL of deionized or distilled water to prepare 600 mL of Wash Solution (1x).
  5. TMB substrate - Aspirate the needed dosage of the solution with sterilized tips and do not dump the residual solution into the vial again.

Note:

1. Making serial dilution in the wells directly is not permitted.
2. Prepare standard within 15 minutes before assay. Please do not dissolve the reagents at 37 °C directly.
3. Please carefully reconstitute Standards or working Detection Reagent A and B according to the instruction, and avoid foaming and mix gently until the crystals are completely dissolved. To minimize imprecision caused by pipetting, use small volumes and ensure that pipettors are calibrated. It is recommended to suck more than 10 $\mu$ L for once pipetting.
4. The reconstituted Standards, Detection Reagent A and Detection Reagent B can be used only once.
5. Prepare Substrate working Solution within 15 minutes before assay.
6. If crystals have formed in the Wash Solution concentrate (30x), warm to room temperature and mix gently until the crystals are completely dissolved.
7. Contaminated water or container for reagent preparation will influence the detection result.

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Sample Preparation:

- It is recommended to use fresh samples without long storage, otherwise protein degradation and denaturation may occur in these samples, leading to false results. Samples should therefore be stored for a short period at 2 - 8 °C or aliquoted at -20 °C ( $\leq$  1 month) or -80 °C ( $\leq$  3 months). Repeated freeze-thaw cycles should be avoided. Prior to assay, the frozen samples should be slowly thawed and centrifuged to remove precipitates.
- If the sample type is not specified in the instructions, a preliminary test is necessary to determine compatibility with the kit.
- If a lysis buffer is used to prepare tissue homogenates or cell culture supernatant, there is a possibility of causing a deviation due to the introduced chemical substance. The recommended dilution factor is for reference only.

## Application Details

- Please estimate the concentration of the samples before performing the test. If the values are not in the range of the standard curve, the optimal sample dilution for the particular experiment has to be determined. Samples should then be diluted with PBS (pH =7.0-7.2).

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| Assay Precision: | Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level of target were tested 20 times on one plate, respectively.<br>Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level of target were tested on 3 different plates, 8 replicates in each plate.<br>$CV(\%) = SD/mean \times 100$<br>Intra-Assay: $CV < 10\%$<br>Inter-Assay: $CV < 12\%$ |
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| Restrictions: | For Research Use only |
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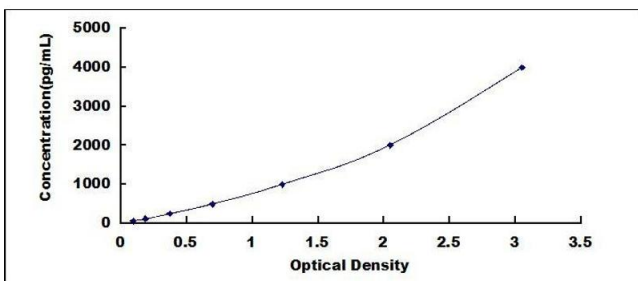
## Handling

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| Storage: | 4 °C/-20 ° C |
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| Storage Comment: | <ol style="list-style-type: none"><li>1. For unopened kit: All reagents should be stored according to the labels on the vials. The Standard, Detection Reagent A, Detection Reagent B, and 96-well Strip Plate should be stored at -20 °C upon receipt, while the other reagents should be stored at 4 °C.</li><li>2. For opened kits: the remaining reagents must be stored according to the above storage conditions. In addition, please return the unused wells to the foil pouch containing the desiccant and seal the foil pouch with the zipper.</li></ol> |
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| Expiry Date: | 6 months |
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## Images



### ELISA

**Image 1.** Typical standard curve