ARG81185
Human HMGB1 ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG81185-001	antibody-coated microplate	12 X 8 strips	4°C
ARG81185-002	Standard	1 vial (lyophilized)	4°C, store at -20 °C after reconstitution
ARG81185-003	Standard reconstitution buffer	1.1 ml	4°C
ARG81185-004	HRP-antibody Conjugate (200X)	115 µl	4°C
ARG81185-005	Sample & Antibody diluent buffer	50 ml	4°C
ARG81185-006	10X Wash buffer	20 ml	4°C
ARG81185-007	TMB substrate	12 ml (ready-to-use)	4°C (Protect from light)
ARG81185-008	STOP solution	6 ml	4°C

Summary

Product Description	ARG81185 Human HMGB1 ELISA Kit is an Enzyme Immunoassay kit in simple steps with good precision for the quantification of Human HMGB1 in plasma and cell culture supernatants.
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat
Tested Application	ELISA
Specificity	This Human HMGB1 ELISA kit detect natural and recombinant Human HMGB1 protein and the cross-reactivity with HMGB2 is lower than < 2%.
Target Name	HMGB1
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	0.3 ng/ml
Sample Type	Plasma and cell culture supernatants.
Standard Range	0.3125 - 20 ng/ml
Sample Volume	100 µl
Precision	less than 5.2%
Alternate Names	HMG-1; High mobility group protein B1; High mobility group protein 1; HMG1; SBP-1; HMG3

Application Instructions

Assay Time	Overnight

Properties

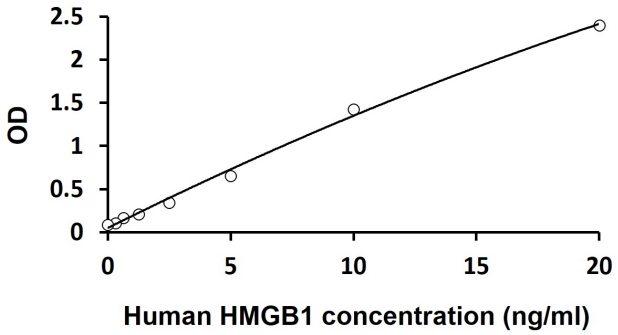
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 3146 Human Swiss-port # P09429 Human
Gene Symbol	HMGB1
Gene Full Name	high mobility group box 1
Background	HMGB1 is a protein that belongs to the High Mobility Group-box superfamily. The encoded non-histone, nuclear DNA-binding protein regulates transcription, and is involved in organization of DNA. This protein plays a role in several cellular processes, including inflammation, cell differentiation and tumor cell migration. Multiple pseudogenes of this gene have been identified. Alternative splicing results in multiple transcript variants that encode the same protein. [provided by RefSeq, Sep 2015]
Function	HMGB1 is a DNA binding protein. It associates with chromatin and has the ability to bend DNA. Binds preferentially single-stranded DNA. Involved in V(D)J recombination by acting as a cofactor of the RAG complex. Acts by stimulating cleavage and RAG protein binding at the 23 bp spacer of conserved recombination signal sequences (RSS). [UniProt]
Highlight	Related products: HMGB1 antibodies; HMGB1 ELISA Kits; HMGB1 Duos / Panels; HMGB1 recombinant proteins; Related news: HMGB1, a biomarker and therapeutic target in COVID-19 Total solution for HMGB1 research HMGB1 in inflammation Inflammatory Cytokines HMGB1 ELISA Kit for your research Detecting the DAMPs in cancer therapy by HMGB1 ELISA kit New HMGB1 neutralizing antibody is released Detecting exosomal HMGB1 for ICD research Related poster download: HMGB1 Pathway.pdf New ELISA data calculation tool: Simplify the ELISA analysis by GainData
PTM	Phosphorylated at serine residues. Phosphorylation in both NLS regions is required for cytoplasmic translocation followed by secretion (PubMed:17114460). Acetylated on multiple sites upon stimulation with LPS (PubMed:22801494). Acetylation on lysine residues in the nuclear localization signals (NLS 1 and NLS 2) leads to cytoplasmic localization and subsequent secretion (By similarity). Acetylation on Lys-3 results in preferential binding to DNA ends and impairs DNA bending activity (By similarity). Reduction/oxidation of cysteine residues Cys-23, Cys-45 and Cys-106 and a possible intramolecular disulfide bond involving Cys-23 and Cys-45 give rise to different redox forms with specific functional activities in various cellular compartments: 1- fully reduced HMGB1 (HMGB1C23hC45hC106h), 2-disulfide HMGB1 (HMGB1C23-C45C106h) and 3- sulfonyl HMGB1 (HMGB1C23soC45soC106so). Poly-ADP-ribosylated by PARP1 when secreted following stimulation with LPS (By similarity). In vitro cleavage by CASP1 is liberating a HMG box 1-containing peptide which may mediate immunogenic activity; the peptide antagonizes apoptosis-induced immune tolerance (PubMed:24474694). Can be proteolytically cleaved by a thrombin:thrombomodulin complex. (By

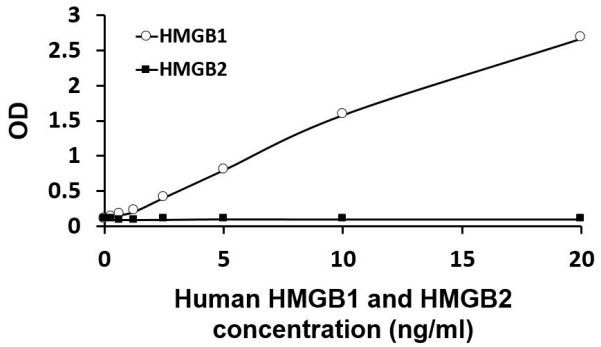
similarity).

Images



ARG81185 Human HMGB1 ELISA Kit standard curve image

ARG81185 Human HMGB1 ELISA Kit results of a typical standard run with optical density reading at 450 nm.



ARG81185 Human HMGB1 ELISA Kit specificity testing image

Recombinant HMGB1 and recombinant HMGB2 were used for ARG81185 Human HMGB1 ELISA Kit specificity test. The data showed no significant cross-reactivity or interference with recombinant human HMGB2.