



HMGB1

& Spark<sup>®</sup> -

A perfect team.

IMMUNOLOGY / CYTOKINES



# Find the Spark in your cell cultures with HMGB1.

HMGB1 is involved in many different cell death processes, like apoptosis, autophagy, necrosis, necroptosis, pyroptosis and NETosis. Furthermore there are different modes of active HMGB1 release from cells, dependent on pathway and response to different stimuli<sup>1</sup>.

Yet, HMGB1 and its biologically active parts can themselves be cell stimulators. Extracellular HMGB1 is known to be involved in cell differentiation, cell migration, tissue regeneration, proliferation, cell death and cellular senescence amongst others<sup>1</sup>.

So why not combining live cell assay capabilities of the Spark<sup>®</sup> multimode reader with the biochemical HMGB1 assessment.

Or you can stimulate your cells with HMGB1 and watch live what happens to your cells.

## ONE INSTRUMENT = ALL READOUTS

HMGB1 is widely investigated and its measurement via ELISA is an often used read-out tool in cell culture experiments. Often HMGB1 was measured in cell lysates as well as supernatant of treated cell lines. These involve cells such as hepatocytes<sup>2</sup>, macrophages<sup>3</sup>, leukemia cells<sup>4</sup> and many more.

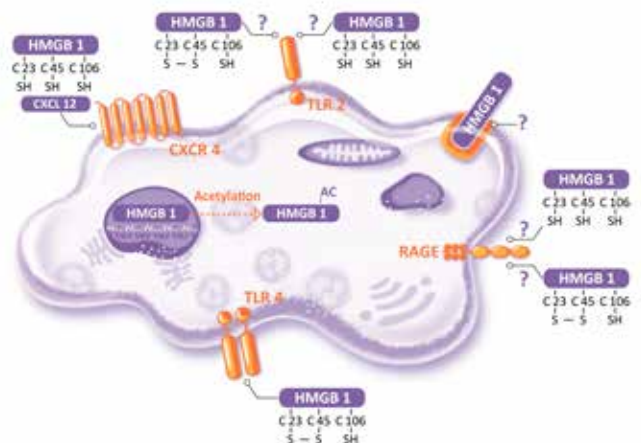
Spark<sup>®</sup>'s live cell assays and HMGB1 measurement will give you biochemical understanding as well as a live picture of what is happening to your cells upon different stimuli.

## SPARK<sup>®</sup>'S LIVE CELL PACKAGE

### Complete environmental control, simplified

Your life as a cell biologist revolves around keeping your cells happy, no matter the time or day. Take back control of your time and keep your cells happy by automating your workflows. Spark<sup>®</sup> brings together the capabilities of an automated incubator, a microplate reader and a cell imager in one, offering new possibilities for you and your lab.

## HMGB1 cell interactions



<sup>1</sup>Kang R. et al. Mol Aspects Med. 2014 Dec;40:1-116.

<sup>2</sup>Deng M. et al. Immunity. 2018 Oct 1. pii: S1074-7613(18)30379-0.

<sup>3</sup>Lu B. et al. Nature. 2012 Aug 30;488(7413):670-674.

<sup>4</sup>Zhao M. et al. BMB Rep. 2011 Sep;44(9):601-606.



## HMGB1 PRODUCTS — For Research Use Only. Not for use in diagnostic procedures.

Immunoassay	Catalog#	Determ.	Assay range	Incubation time	Sample type
HMGB1 Express ELISA	30164033	96 well	2.5 - 80 ng/mL	1st: 37 °C, 2h, 2nd: 25 °C, 1h, 3rd: RT, 20 min	Serum, plasma (EDTA, Citrate)

## Related products for cell research (research use only)

Protein isoforms and related proteins*	Catalog#	Quantity	Intended use
Fully reduced HMGB1, LPS-free	REHM114	500 µg	To study HMGB1 cell migratory effects in vitro and in vivo
	REHM115	100 µg	
	REHM116	50 µg	
Disulfide HMGB1, LPS-free	REHM120	500 µg	To study HMGB1 induced cytokine effects in proinflammatory processes
	REHM121	100 µg	
	REHM122	50 µg	
BoxA from HMGB1, LPS-free	REHM012	100 µg	To study HMGB1-RAGE interaction by using BoxA as an antagonist for HMGB1
	REHM013	500 µg	
	REHM014	2 mg	
BoxB from HMGB1, LPS-free	REHM052	100 µg	To study HMGB1 induced cytokine activity by measuring BoxB as a read out
	REHM051	250 µg	
	REHM050	1 mg	
HMGB1 Isoforms Kit (fully-reduced, disulfide, terminally oxidized HMGB1)	30149875	3 x 10 µg	To study HMGB1 biology in different redox states
	30149878	3 x 50 µg	

\* Distributed by IBL International

## SPARK® CONFIGURATION OPTIONS FOR LIVE CELL PACKAGE

Detection modes:	Absorbance, fluorescence, luminescence
Evaporation protection:	Humidity Cassette and Lid Lifter™
Environmental control:	O <sub>2</sub> and CO <sub>2</sub> control
Cell counting and and confluence:	Brightfield automated cell imaging
Workflow automation:	SparkControl™, featuring "conditional kinetics"

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