HMGB1 Products

Lipopolysaccharide (LPS) may play an important pathogenic role in triggering and exacerbating chronic inflammatory autoimmune diseases. High Mobility Group Box 1 (HMGB1), a late-stage lethal mediator of LPS, is a known pro-inflammatory cytokine which stimulates release of other cytokines such as TNF-α and IL-6 through Toll-like receptor 4 (TLR4). Because TLR4 is a receptor for LPS, it is assumed that LPS and HMGB1 play a synergistic role in chronic inflammatory diseases. HMGB1 is currently considered an important target molecule for developing new therapeutics.

Bovine HMGB1 (Catalog # 9050), 1 mg/ml x 0.1 ml

HMGB1 was purified from bovine thymus. Pro-inflammatory cytokine activity was confirmed by TNF-α release from RAW 264.7 cells incubated with HMGB1 for 16 hours.

HMGB1 Detection ELISA Kit (Catalog # 6010)

Standard Range: 0.8 - 50 ng/ml

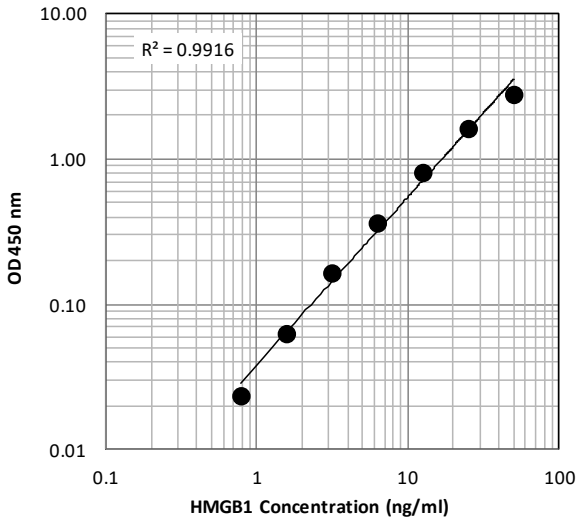
Reproducibility:

Species	Intra-Assay CV (%)	Inter-Assay CV (%)
Human	2.7 - 3.6	1.3 - 5.1
Mouse	1.4 - 8.1	0.9 - 4.5

Recovery:

Species	Averaged Recovery Results
Human (5 sera)	101 +/- 25.1%
Mouse (5 sera)	104 +/- 8.3%

Standard Curve



Specificity:

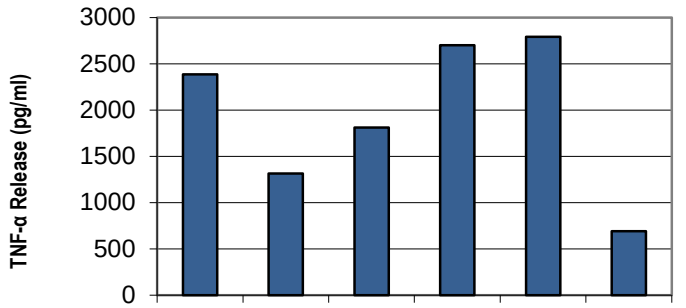
Average cross-reactivity to bovine HMGB2 is 12.4%

Anti-HMGB1 Mouse Antibodies (1 mg/ml x 0.1 ml)

Type	Product	Catalog #
Monoclonal	Anti-HMGB1 Peptide (2-11) Antibody, Clone 1-1.2BP1	7032
	Anti-HMGB1 Peptide (2-11) Antibody, Clone 1-2.5AP	7033
	Anti-HMGB1 Peptide (2-11) Antibody, Clone 1-3.10EP1	7034
	Anti-HMGB1 Peptide (166-176) Antibody, Clone 1-1.2.11.P2	7037
	Anti-Bovine HMGB1 Antibody, Clone 1-37.10FH	7047
Polyclonal	Anti-Bovine HMGB1 Rabbit Antibodies	7028
	Anti-HMGB1 Peptide (2-11) Rabbit Antibodies	7029
	Anti-HMGB1 Peptide (166-176) Rabbit Antibodies	7030
	Anti-Bovine HMGB1 IgY Antibodies	7064

Chondrex, Inc. also provides mouse and human cytokine ELISA kits (TNF-α, IL-4, IL-6, etc.) for assaying HMGB1 biological activity. For more information, please contact Chondrex, Inc. at support@chondrex.com.

Anti-HMGB1 mAb (Cat # 7034) inhibits TNF-α release by HMGB1 from RAW 264.7 Cells

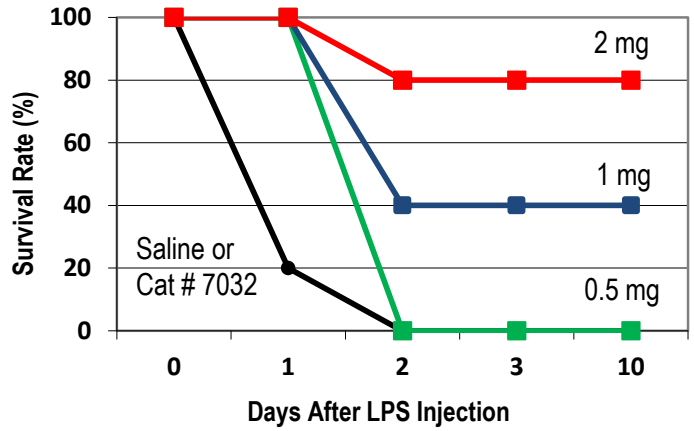


HMGB1	1	1	1	1	1	–
Cat # 7034	–	5	2.5	1	–	–
Cat # 7032	–	–	–	–	5	–

(µg/ml)

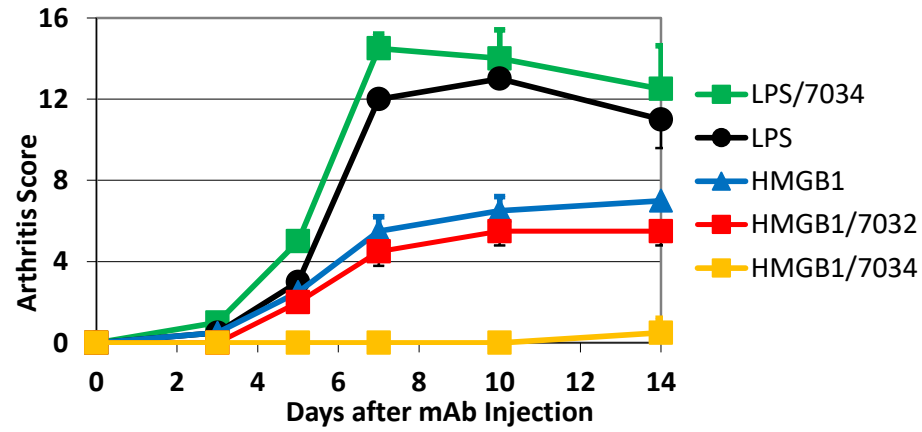
Mouse RAW cells in OPTI serum free media
↓
Add bovine HMGB1 and anti-HMGB1 mAbs
↓
Incubate at 37°C for 16 hours
↓
Assay for TNF-α levels in culture media

Anti-HMGB1 mAb (Cat # 7034) Prevents LPS Lethality in BALB/c Mice



BALB/c mice (8 weeks old, males)
↓
Day 0: IP injection of each dose of mAb
↓
2 hours later: IP injection of 0.5 mg LPS
↓
Observe mice every day until day 10

Anti-HMGB1 mAb (Cat # 7034) Suppresses CAIA Induction by HMGB1 in DBA/1 Mice



DBA/1 mice (8 weeks old, males)
↓
Day 0 : IP injection of 1.5 mg 5-clone cocktail (Cat # 53010)
↓
Day 1 : IP injection of 5 mg anti-HMGB1 mAb
↓
Day 3 : IP injection of 50 µg LPS or 500 µg bovine HMGB1 (Cat # 9050)
↓
Observe mice every day until day 14