



HMGB1 Products



LPS may play important pathogenic roles such as triggering and exacerbating chronic inflammatory autoimmune diseases. HMGB1, a late stage lethal mediator of LPS known as a pro-inflammatory cytokine, stimulates release of other cytokines such as TNF- α and IL-6 through Toll-like receptor 4 (TLR4). Since 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

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

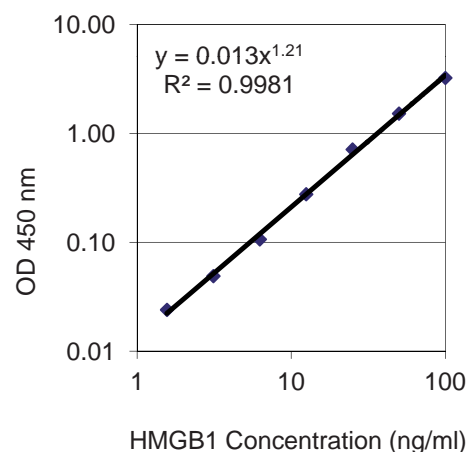
HMGB1 Detection Kit (Catalog # 6010)

Standard range: 1.6 – 100 ng/ml

Reproducibility: Intra-assay coefficient of variation is less than 10%.
Inter-assay coefficient of variation is less than 12.5%.

Recovery : Recovery of mouse serum samples is 85-117%.

Specificity: Cross-reactivity with bovine HMGB2 is 16.4%.



List of Anti-HMGB1 Monoclonal Antibodies

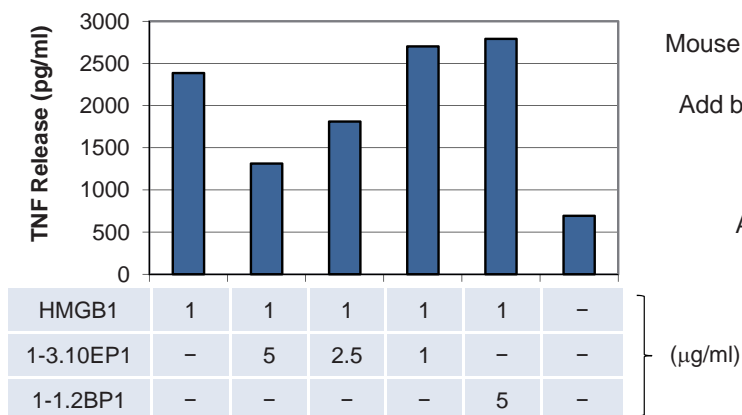
Clone Name	Subtype	Antigen	Epitope	Reactivity	
				HMGB1	HMGB2
1-1.2BP1	G1	Peptide P1 (2-11; GKGDPKKPRGK)	GKG 2-4	+++	+++
1-2.5AP1	G1		DPKKP 5-9	++	-
1-3.10EP1	G1		PKKPR 6-10	++	+
1-16.5GP1	G2a		GKG 2-4	+++	+++
1-17.1DP1	G1		GKG 2-4	+++	++
1-20.8GP1	G1		DPKKP 5-9	+++	++
1-22.2EP1	G1		PKKPR 6-10	+	-
1-24.5CP1	G1		DPKKP 5-9	+++	++
1-27.5BP1	G1		GKG 2-4	+++	++
1-31.7EP1	G1		DPKKP 5-9	+++	++
1-1.2.11P2	G1	Peptide P2 (167-176; KPDAAKKGVV)	DAAKKGVV 168-175	++	-
1-2.2.1P2	G1		DAAKKGVV 168-175	++	-
1-3.1.8P2	G1		DAAKKGVV 168-175	++	-
1-37.10FH	G2b	Bovine HMGB1	DPNAPK 91-96	+++	++
2-2.3BH	G1		75-132	++	++
2-22.6BH	G1		75-132	++	-



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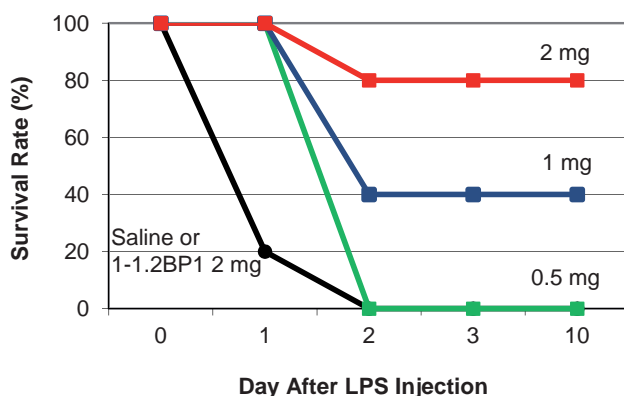


Anti-HMGB1 mAb, 1-3.10EP1, inhibits TNF release by HMGB1 from RAW 264.7 cells



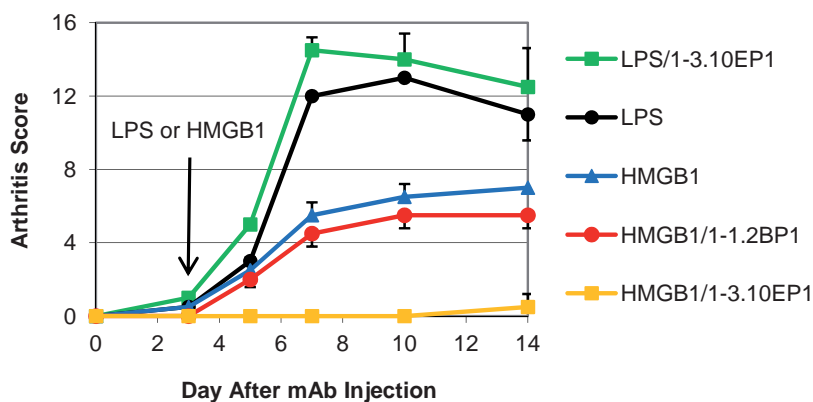
Mouse RAW cells in OPTI serum free medium
↓
Add bovine HMGB1 and anti-HMGB1 mAbs
↓
Incubate at 37°C for 16 hours
↓
Assay TNF in culture supernatant

Anti-HMGB1 mAb, 1-3.10EP1, prevents LPS lethality in Balb/c mice



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

Suppression of collagen antibody induced arthritis with HMGB1 in DBA/1 mice by anti-HMGB1 monoclonal antibodies



DBA/1 mice (8 weeks old, males)
↓
Day 0: IP injection of 1.5 mg 5-clone cocktail
↓
Day 1: IP injection of 5 mg anti-HMGB1 mAb
↓
Day 3: IP injection of 50 μg LPS or 500 μg bovine HMGB1
↓
Observe mice every day until day 14
NOTE: LPS stimulates the release of multiple pro-inflammatory cytokines, and HMGB1 is one of these mediators which triggers arthritis.