

## Disulfide-HMGB1, LPS-free

**Product Number:** -----  
**Expiration date:** -----  
**Batch number:** -----  
**Batch concentration:** ----- mg/mL after addition of  
-----  $\mu$ L of distilled water.

### **Product Description:**

Disulfide-HMGB1 (complete notation: HMGB1C23-C45C106h - Antoine J. *et al* (2014).Mol Med) can induce cytokine and chemokine production in monocytes and other inflammatory cells. This activity depends on a specific redox state of HMGB1 (Venereau *et al* ,2012). This product is produced in E.coli. It contains only trace amounts of LPS (<0.1 EU/mL), and is tested for the ability to stimulate cytokine production in mouse macrophages.

### **Reagent format:**

**The Disulfide-HMGB1 protein we provide is the natural protein, with no tags or additional amino acids.**

Disulfide-HMGB1 is lyophilized from 50 mM HEPES buffer, pH 7.9 and 500 mM NaCl.

**Storage:** 2-8°C. The protein once resuspended can be stored frozen (-20°C).

### **How to use product:**

The product can be used as a pro-inflammatory mediator (Venereau *et al*, 2012).

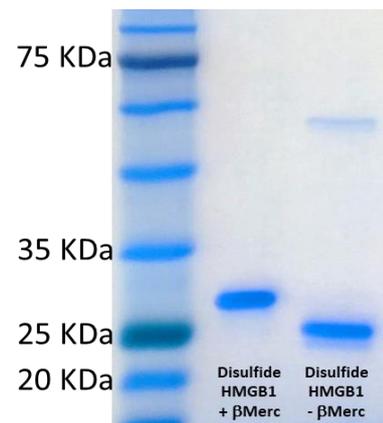
### **This product is for research use only**

#### **References:**

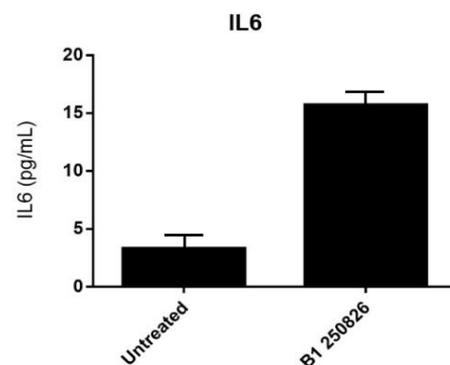
- Venereau *et al* (2012) Mutually exclusive redox forms of HMGB1 promote cell recruitment or proinflammatory cytokine release J Exp Med. 209: 1519–1528.
- Wang *et al* (1999) HMG-1 as a late mediator of endotoxin lethality in mice. Science 285:248-51
- Andersson *et al* (2000) High mobility group 1 protein (HMG-1) stimulates proinflammatory cytokine synthesis in human monocytes. J Exp Med 192:565-70
- Scaffidi *et al* (2002) Release of chromatin protein HMGB1 by necrotic cells triggers inflammation. Nature 418: 191-195
- Yang *et al* (2012) Redox modification of cysteine residues regulates the cytokine activity of HMGB1. Mol Med 222: 451-457

MGKGDPPKPR	GKMSSYAFFV	QTCREEHKKK
HPDASVNFSE	FSKKCSERWK	TMSAKEKGF
EDMAKADKAR	YEREMKTYIP	PKGETKFKFK
DPNAPKRPPS	AFFLFCSEYR	PKIKGEHPGL
SIGDVAKKLG	EMWNTAADD	KQPYEKKA
LKEKYEKIDIA	AYRAKGKPD	AKKGVVKA
SKKKKEEEDD	EEDEEDEEEE	EEEEDEDEEE
DDDE		

**Fig. 1.** Disulfide-HMGB1 sequence



**Fig. 2.** SDS-PAGE with Coomassie Blue staining



**Fig. 3.** Disulfide-HMGB1 induces cytokine production. Mouse macrophages were exposed to 10  $\mu$ g/ml HMGB1 for 24 hours at 37°C, and the levels of IL-6 were measured by ELISA relative to unexposed macrophages.