

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse HMGB3 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human HMG-1, A1A, A1B, or A2 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 546519
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human HMGB3 Met1-Glu180 Accession # O15347
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

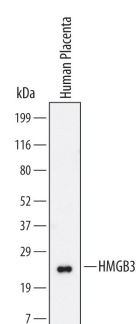
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

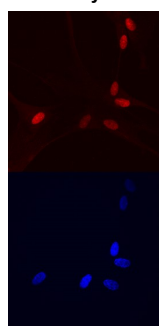
DATA

Western Blot



Detection of Human HMGB3 by Western Blot. Western blot shows lysates of human placenta tissue. PVDF Membrane was probed with 2 µg/mL of Human/Mouse HMGB3 Monoclonal Antibody (Catalog # MAB55071) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for HMGB3 at approximately 23 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



HMGB3 in Detroit 551 Human Cell Line. HMGB3 was detected in immersion fixed Detroit 551 human skin fibroblast cell line using Human/Mouse HMGB3 Monoclonal Antibody (Catalog # MAB55071) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

High mobility group protein B3 (HMGB3; also HMG-4 and HMG-2a) is a 23 kDa nuclear protein and member of the HMGB family. Human HMGB3 is synthesized as a 200 amino acid (aa) precursor, which is demethylated to produce the 199 aa mature chain. The protein contains two HMG box DNA-binding domains (aa 9-79 and 93-161) and an acidic Asp/Glu-rich region (aa 181-200). Human HMGB3 shares 98% aa sequence identity with mouse and bovine HMGB3. HMGB3 is expressed predominantly in the placenta. It binds preferentially single-stranded DNA and unwinds double stranded DNA.