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Antibody to Human High-Mobility Group Box 1 MOUSE MONOCLONAL

Catalog Number: AB-588
Quantity: 5 micrograms, 20 micrograms, 100 micrograms
Format: PBS pH 7.4 and 0.1% sodium azide
Host: Mouse
Isotype: IgG2b heavy chain and K light chain
Clone: PJ2E1AT
Immunogen: recombinant human HMGB1 amino acids 1-215

Background:

High-mobility group box 1 protein (HMGB1), previously known as HMG-1 or amphoterin, is a member of the high mobility group box family of non-histone chromosomal proteins. Human HMGB1 is expressed as a 30 kDa, 215 amino acid (aa) single chain polypeptide containing three domains: two N-terminal globular, 70 aa positively charged DNA-binding domains (HMG boxes A and B), and a negatively charged 30 aa C-terminal region that contains only Asp and Glu. Residues 27-43 and 178-184 both contain a NLS. Posttranslational modifications of the molecule have been reported, with acetylation occurring on as many as 17 lysine residues. HMGB1 is expressed at high levels in almost all cells. It was originally discovered as a nuclear protein that could bend DNA. Such bending stabilizes nucleosome formation and regulates the expression of select genes upon recruitment by DNA binding proteins.

Specificity and Preparation:

Anti-human HMGB1 monoclonal antibody is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with recombinant human HMGB1 amino acids 1-215 purified from High Five (*Trichoplusia ni*) insect cells. HMGB1 antibody was purified from mouse ascitic fluids by protein-G affinity chromatography. Protein formulation is 1 mg/ml containing PBS pH 7.4 and 0.1% sodium azide. The antibody has been tested by ELISA, western blot and immunohistochemistry analysis to assure specificity and reactivity.

Usage and Storage:

Reported to be effective for ELISA, immunoblotting (western blot, 1:500-1:2,000) and immunohistochemistry (1:100-1:300). For each application, the reagent should be titrated to obtain optimal results. Store material at 4°C for periods up to one month. For longer periods of time, store at -20°C. Avoid repeated freezing and thawing. Material is stable for 12 months at -20°C or one month at 4°C. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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