

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Serpin B2 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # 930119
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Serpin B2 Glu2-Ala65, Ala99-Pro415 Accession # P05120
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 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
Knockout Validated	2 µg/mL	See Below
Western Blot	0.05 µg/mL	See Below
Simple Western	20 µg/mL	See Below

DATA

Knockout Validated

Western Blot Show Human Serpin B2 Specificity Using Knockout Cell Line. Western blot shows lysates of K562 human chronic myelogenous leukemia parental cell line and Serpin B2 knockout K562 cell line (KO) untreated (-) or treated (+) with 300nM PMA for overnight. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human Serpin B2 Monoclonal Antibody (Catalog # MAB85501) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Serpin B2 at approximately 40 kDa (as indicated) in the parental K562 cell line, but is not detectable in the knockout K562 cell line. HSP60 (Catalog # MAB1800) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Western Blot

Detection of Human Serpin B2 by Western Blot. Western blot shows lysates of HEK001 human epidermal keratinocyte cell line (untreated) and U937 human histiocytic lymphoma cell line untreated (-) or treated (+) with PMA. PVDF membrane was probed with 0.05 µg/mL of Mouse Anti-Human Serpin B2 Monoclonal Antibody (Catalog # MAB85501) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Serpin B2 at approximately 45 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western

Detection of Human Serpin B2 by Simple Western™. Simple Western lane view shows lysates of U937 human histiocytic lymphoma cell line untreated (-) or treated (+) with PMA, loaded at 0.2 mg/mL. Specific bands were detected for Serpin B2 at approximately 45 & 50 kDa (as indicated) using 20 µg/mL of Mouse Anti-Human Serpin B2 Monoclonal Antibody (Catalog # MAB85501). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system. Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
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

Serpin B2, also known as Plasminogen Activator Inhibitor 2 (PAI-2), is a 415 amino acid serine-type endopeptidase inhibitor with high expression in blood, vasculature and placenta. Its expression is upregulated in pregnancy and in activated monocytes/macrophages by a wide range of viral, bacterial and parasitic agents. Serpin B2 is upregulated in monocytes from HIV-1 infected patients, and is thought to modulate Th1/Th2 responses. Serpin B2/PAI-2 colocalizes with CHL1 and Vitronectin and mediates neurite outgrowth during post-natal brain development. Inhibition of uPA by SerpinB2 in tumors is associated with a favorable prognosis.