

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Serpin B2 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 930109
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.

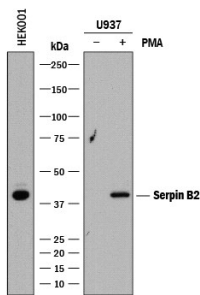
APPLICATIONS

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
Western Blot	2 µg/mL	See Below
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Knockout Validated	Serpin B2 is specifically detected in K562 human chronic myelogenous leukemia parental cell line but is not detectable in Serpin B2 knockout K562 cell line.	

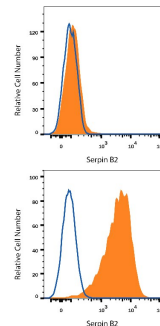
DATA

Western Blot



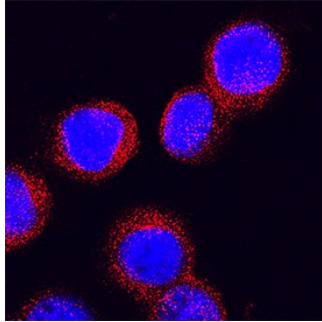
Detection of Human Serpin B2 by Western Blot. Western blot shows lysates of U937 human histiocytic lymphoma cell line untreated (-) or treated (+) with PMA and HEK001 human epidermal keratinocyte cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human Serpin B2 Monoclonal Antibody (Catalog # MAB8550) 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.

Flow Cytometry



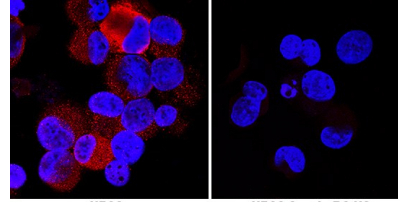
Detection of Serpin B2 in U937 Human Cell Line by Flow Cytometry. U937 human histiocytic lymphoma cell line either untreated (upper panel) or treated with PMA and Calcium Ionomycin for 2 days (lower panel) was stained with Mouse Anti-Human Serpin B2 Monoclonal Antibody (Catalog # MAB8550, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B).

Immunocytochemistry



Serpin B2 in U937 Human Cell Line.
Serpin B2 was detected in immersion fixed U937 human histiocytic lymphoma cell line stimulated with PMA using Mouse Anti-Human Serpin B2 Monoclonal Antibody (Catalog # MAB8550) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Knockout Validated



K562

K562 Serpin B2 KO

Serpin B2 Specificity is Shown by Immunocytochemistry in Knockout Cell Line. Serpin B2 was detected in immersion fixed K562 human chronic myelogenous leukemia cell line treated with PMA but is not detected in Serpin B2 knockout (KO) K562 cell line using Mouse Anti-Human Serpin B2 Monoclonal Antibody (Catalog # MAB8550) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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.