

DESCRIPTION

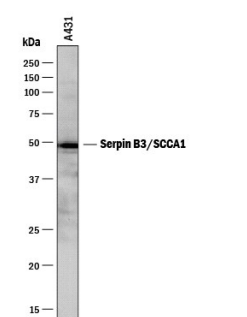
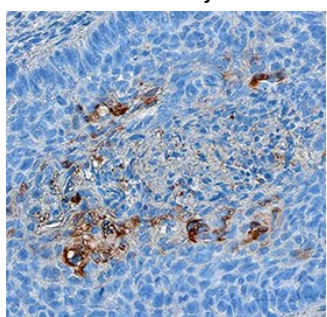
Species Reactivity	Human
Specificity	Detects human Serpin B3/SCCA1 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 886524
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Serpin B3/SCCA1 Asn2-Pro390 Accession # P29508
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	0.5 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human Serpin B3/SCCA1 by Western Blot. Western blot shows lysates of A431 human epithelial carcinoma cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human Serpin B3/SCCA1 Monoclonal Antibody (Catalog # MAB6528) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Serpin B3/SCCA1 at approximately 48 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p>  <p>Serpin B3/SCCA1 in Human Squamous Cell Carcinoma. Serpin B3/SCCA1 was detected in immersion fixed paraffin-embedded sections of human squamous cell carcinoma using Mouse Anti-Human Serpin B3/SCCA1 Monoclonal Antibody (Catalog # MAB6528) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in cancer cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>
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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 B3, also known as Squamous Cell Carcinoma Antigen-1 (SCCA1), is a member of the serpin superfamily of serine protease inhibitors (1). Serpins primarily inhibit serine proteases and some are known to inhibit caspases and papain-like cysteine proteases (1). Serpin B3 belongs to the subgroup ovalbumin-related serpins which are involved in the regulation of apoptosis, inflammation, angiogenesis and embryogenesis (2). Serpin B3 was initially isolated from human cervical squamous cell tissue. It is a tumor marker for squamous cell carcinomas in various areas including the cervix, head, neck and lung (3). Unlike typical serpins, Serpin B3 shows inhibitory activity against papain-like lysosomal cysteine proteases Cathepsin K, L, and S, while lacking inhibitory activity against serine proteases (4).

References:

1. Law, R. *et al.* (2006) *Genome Biol.* **7**:216.
2. Benarafa, C. and Remold-O'Donnell, E. (2005) *Proc. Natl. Acad. Sci.* **102**:11367.
3. Higgins, W.J. *et al.* (2010) *J. Biol. Chem.* **285**:3722.
4. Schick, C. *et al.* (1998) *Biochemistry.* **37**:5258.