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# Shiga Toxoids

(Recombinant)

**Stx 1a:** Product No. 300900 (10µg)

**Stx 1c:** Product No. 300905 (10µg)

**Stx 1d:** Product No. 300910 (10µg)

**Stx 2a:** Product No. 300920 (10µg)

**Stx 2b:** Product No. 300925 (10µg)

**Stx 2c:** Product No. 300930 (10µg)

**Stx 2d:** Product No. 300935 (10µg)

**Stx 2e:** Product No. 300940 (10µg)

**Stx 2f:** Product No. 300945 (10µg)

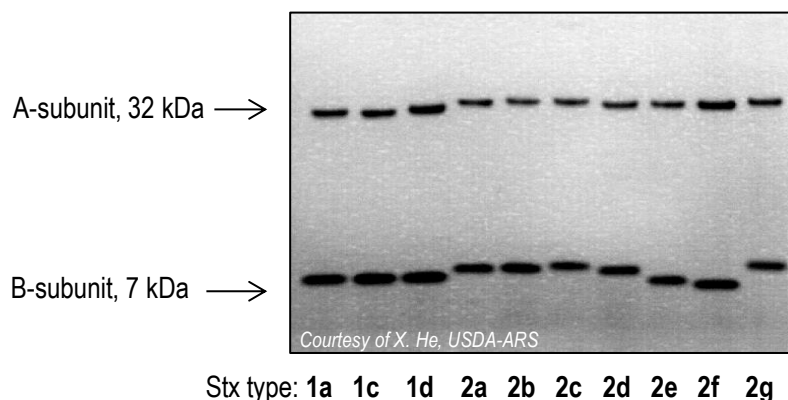
**Stx 2g:** Product No. 300950 (10µg)

## 1. General Description

Shiga toxins (also known as verotoxins) are a family of toxins of emerging concern to human health. Shiga toxins are produced by certain bacteria, including select Shiga toxin-producing *E. coli* (STEC), and are diagnostically separated into two groups, Stx 1 and Stx 2. Stx 1 is further broken down into three subtypes (Stx 1a, Stx 1c, Stx 1d) and Stx 2 into seven subtypes (Stx 2a, Stx 2b, Stx 2c, Stx 2d, Stx 2e, Stx 2f, Stx 2g). Both groups are AB<sub>5</sub> toxins, consisting of a 32kDa A-subunit with five ~7.7kDa B-subunits, for a total molecular weight of approximately 72kDa. Due to their cytotoxic activity, consuming meats and produce contaminated with STEC is a main cause of food poisoning, resulting in a range of symptoms from diarrhea to hemorrhagic colitis and hemolytic uremic syndrome.

The Shiga toxoids produced by Abraxis, Inc. in recombinant *E. coli* have an altered glutamic acid active site in the A-subunit, rendering the modified toxin ("toxoid") non-cytotoxic as confirmed by Vero cell tests.

The gel image below shows 1µg of each recombinant Shiga toxoid subtype separated by SDS-PAGE into A- and B-subunits:



## 2. Safety Instructions

Use safe laboratory practices and protective equipment (including but not limited to gloves, lab coats, and safety glasses) when working with Shiga toxoids. Refer to Safety Data Sheet for further information.

## 3. Storage and Stability

The Shiga toxoid is supplied as a lyophilized powder. Upon receipt, store at 4°C. In lyophilized form, the toxoid is stable at least one year. After reconstitution, store the solution at 4°C for up to one month, or at -20°C for up to a year (aliquot to avoid repeated freezing and thawing). When reconstituted in 100µL of water, each vial contains 10µg of Shiga toxoid in 1X PBS pH 7.3 + 10% trehalose. Mix by gently inverting the tube, do not vortex.

## 4. Applications

Shiga toxoids can be used as controls for ELISA or Western blot analyses, or for other research purposes.

**General Limited Warranty:** Abraxis, Inc. warrants the products manufactured by the Company, against defects and workmanship when used in accordance with the applicable instructions for a period not to extend beyond the product's printed expiration date. Abraxis Inc. makes no other warranty, expressed or implied. There is no warranty of merchantability or fitness for a particular purpose.

**This product is intended for research use only.**