Anti-DXD Antibody [PSH0-73]

HA721474

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Species independent
Applications:	ELISA
Clone number:	PSH0-73

Description: Trastuzumab deruxtecan, sold under the brand name Enhertu, is an antibody-drug conjugate consisting of the humanized monoclonal antibody trastuzumab (Herceptin) covalently linked to the topoisomerase I inhibitor deruxtecan (a derivative of exatecan). It is licensed for the treatment of breast cancer or gastric or gastroesophageal adenocarcinoma. Trastuzumab binds to and blocks signaling through epidermal growth factor receptor 2 (HER2/neu) on cancers that rely on it for growth. Additionally, once bound to HER2 receptors, the antibody is internalized by the cell, carrying the bound deruxtecan along with it, where it interferes with the cell's ability to make DNA structural changes and replicate its DNA during cell division, leading to DNA damage when the cell attempts to replicate itself, destroying the cell. Trastuzumab deruxtecan is the first approved therapy by the US Food and Drug Administration (FDA) targeted to people with the HER2-low breast cancer subtype subset of HER2-negative breast cancer.

Immunogen: DXD-OVA

Recommended Dilutions:

ELISA	1:1,000

Storage Buffer: PBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

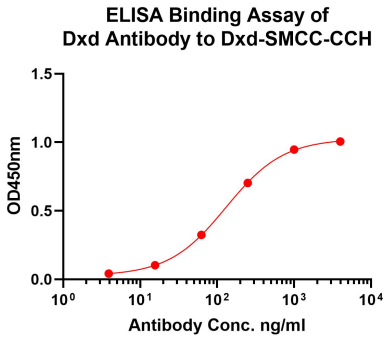

Fig1: Indirect ELISA analysis of Dxd was performed by coating wells of a 96-well plate with 50 µL per well of Dxd-SMCC-CCH diluted in carbonate/bicarbonate buffer, at a concentration of 1 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 1% BSA blocking buffer, and incubated with 50 µL per well of Dxd monoclonal antibody serial diluted starting from a concentration of 4µg/mL for 1 hour at room temperature. The plate was washed and incubated with 50 µL per well of an HRP-conjugated goat anti-rabbit IgG secondary antibody at a dilution of 1:35,000 for one hour at room temperature. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

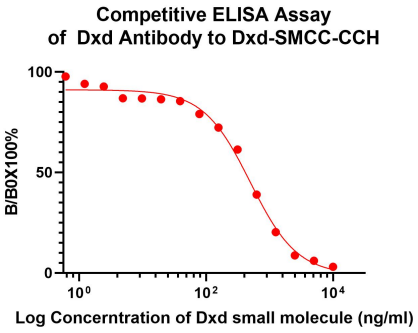

Fig2: Competitive ELISA analysis of Dxd was performed by coating wells of a 96-well plate with 50 µL per well of Dxd-SMCC-CCH diluted in carbonate/bicarbonate buffer, at a concentration of 1 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 1% BSA blocking buffer, and incubated with 50 µL per well of Dxd monoclonal antibody at concentration of 2 µg/mL with serial diluted Dxd starting from a concentration of 10µg/mL for 1 hour at room temperature. The plate was washed and incubated with 50 µL per well of an HRP-conjugated goat anti-rabbit IgG secondary antibody at a dilution of 1:30,000 for one hour at room temperature. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

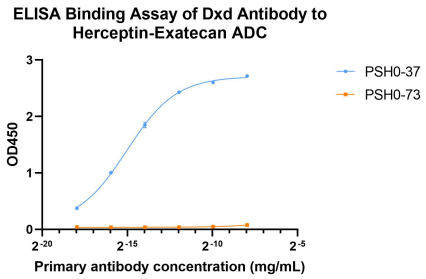

Fig3: Indirect ELISA was performed to compare the Herceptin-Exatecan-binding activities of the two antibodies. Wells of a 96-well plate were coated with 50 µL per well of Herceptin-Exatecan ADC (1 µg/mL) diluted in carbonate/bicarbonate buffer and incubated overnight at 4℃. The plate was then washed and blocked with 1% BSA blocking buffer for 1 hour at room temperature. Following blocking, the wells were incubated with 50 µL per well of serial dilutions of the primary antibody HA601134 (PSH0-37) or HA721474 (PSH0-73) for 1 hour at room temperature. After another wash step, the plate was incubated with 50 µL per well of HRP-conjugated secondary antibodies—goat anti-mouse IgG (HA1006) or goat anti-rabbit IgG (HA1001)—at dilutions of 1:5,000 and 1:35,000, respectively, for 1 hour at room temperature. Signal development was carried out using Ultra TMB Substrate for 10 minutes at room temperature in the dark. The enzymatic reaction was stopped by the addition of sulfuric acid, and the absorbance was measured at 450 nm using a