

DESCRIPTION

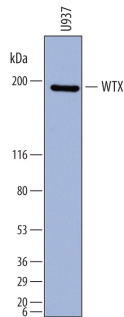
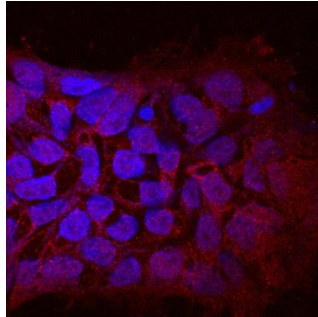
Species Reactivity	Human
Specificity	Detects human WTX in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 729419
Purification	Protein A or G purified from ascites
Immunogen	<i>E. coli</i> -derived recombinant human WTX Met421-Leu573 Accession # Q5JTC6
Formulation	Lyophilized 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	1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human WTX by Western Blot. Western blot shows lysates of U937 human histiocytic lymphoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human WTX Monoclonal Antibody (Catalog # MAB7374) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for WTX at approximately 190 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>WTX in BG01V Human Embryonic Stem Cells. WTX was detected in immersion fixed BG01V human embryonic stem cells using Mouse Anti-Human WTX Monoclonal Antibody (Catalog # MAB7374) at 10 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.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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

WTX (Wilms Tumor on the X; also FAM123B and AMER1) is a 190-200 kDa member of the FAM123 family of proteins. It is widely expressed in both adult and embryo and appears to have at least three functions: one, it binds WT1 in the nucleus and regulates cell differentiation; two, it associates with the plasma membrane and draws APC away from microtubules, thereby participating in intercellular junction integrity; and three, it binds β-catenin and impacts WNT signaling. Human WTX is 1135 amino acids in length. It contains a PtdIns-P2 binding site (aa 2-209), an acidic domain (aa 370-411), and a Pro-rich region (aa 952-1104). There are three APC binding motifs (aa 280-368; 380-431; 717-834) and the β-catenin binding region lies C-terminal to Gly368. There are two isoform variants. One is 150 kDa in size, nuclear in location, and shows a deletion of aa 50-326. A second shows a 19 aa substitution for aa 786-1135. Over aa 421-573, human WTX shares 89% aa identity with mouse WTX.