Human WFS1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7417

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human WFS1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human WFS1 Lys679-Phe783 Accession # O76024
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 either lyophilized or as a 0.2 µm filtered solution in PBS.

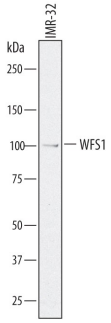
APPLICATIONS

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

DATA

Western Blot



Detection of Human WFS1 by Western Blot. Western blot shows lysates of IMR-32 human neuroblastoma cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human WFS1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7417) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for WFS1 at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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.** ● 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

WFS1 (Wolframin Syndrome gene 1; also Wolframin) is a 100-105 kDa intracellular glycoprotein that contains an unusual eleven transmembrane (TM) topology. It is widely expressed, being found in neurons, fibroblasts, hepatocytes, stratified squamous epithelium and pancreatic β-cells. WFS1 is found in the ER and select secretory vesicles. It is known to be induced by ER stress, which prompts it to increase Ca^{++} in the ER, a condition necessary for proper protein folding. It also contributes to the maintenance of the proper pH in insulin-containing granules. Human WSF1 is 890 amino acids (aa) in length. It is a type II 11-TM protein that possesses a cytoplasmic N-terminus (aa 1-313) and transmembrane-embedded C-terminus (aa 870-890). WSF1 is reported to form homodimers and homotetramers. There are multiple mutations in the WFS1 gene that contribute to Wolfram syndrome. Among these are an isoform that generates a premature truncation at Ser157, a second isoform that possesses a seven aa substitution for aa 509-890, and a third isoform which shows a deletion of aa 508-512. Over aa 679-783, human WFS1 shares 95% aa sequence identity with mouse WFS1.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449