Human/Mouse/Rat Syntaxin 7 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5478

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Syntaxin 7 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Syntaxin 7 Asn21-Glu187 Accession # O15400
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.

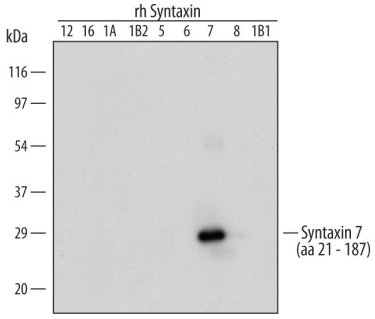
APPLICATIONS

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	5-15 µg/mL	See Below

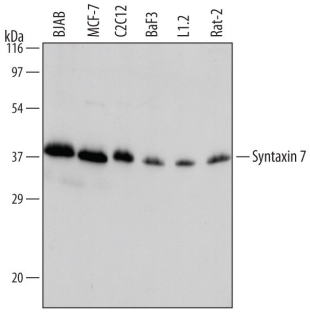
DATA

Western Blot



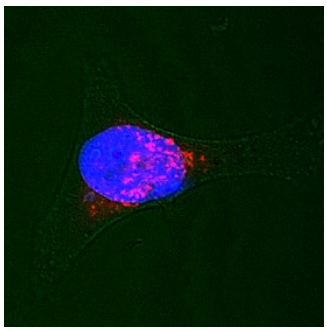
Detection of Human Syntaxin 7 by Western Blot.
Western blot shows recombinant human Syntaxin 12, 16, 1A, 1B2, 5, 6, 7, 8, and 1B1 (5 ng/lane). PVDF membrane was probed with 1 µg/mL Sheep Anti-Human/Mouse/Rat Syntaxin 7 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5478) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band for Syntaxin 7 was detected at approximately 29 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Western Blot



Detection of Human, Mouse, and Rat Syntaxin 7 by Western Blot.
Western blot shows lysates of BJAB human Burkitt's lymphoma cell line, MCF-7 human breast cancer cell line, C2C12 mouse myoblast cell line, BaF3 mouse pro-B cell line, L1.2 mouse pro-B cell line, and Rat-2 rat embryonic fibroblast cell line. PVDF membrane was probed with 1 µg/mL Sheep Anti-Human/Mouse/Rat Syntaxin 7 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5478) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band for Syntaxin 7 was detected at approximately 39 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Syntaxin 7 in HeLa Human Cell Line.
Syntaxin 7 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Sheep Anti-Human/Mouse/Rat Syntaxin 7 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5478) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to lysosomes. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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.** ● 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.

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BACKGROUND

Syntaxin 7 (STX7) is a widely expressed protein embedded in endosomal and lysosomal membranes, and serves as a component of the SNARE complex. STX7 is involved in endocytic trafficking from early endosomes to late endosomes and lysosomes. This is in contrast to STX8, which is involved in clathrin-independent vesicular transport. Human STX7 is a type IV single-pass transmembrane protein (very short exoplasmic C-terminus) that is 261 amino acids (aa) in length. It contains a coiled-coil region (aa 47-69), a t-SNARE domain (aa 165-227) that is likely involved in protein-protein interactions, and a short, two amino acid, C-terminal luminal sequence. Over aa 21-187, human STX7 shares 97% aa identity with mouse STX7.