

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human and rat UBASH3B/STS1 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human UBASH3B/STS1 Gly48-Phe253 Accession # Q8TF42
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.

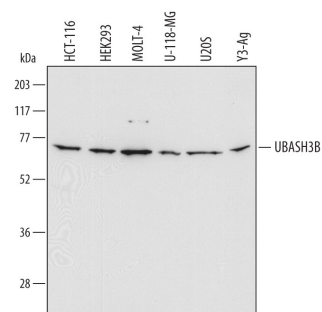
APPLICATIONS

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	2 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

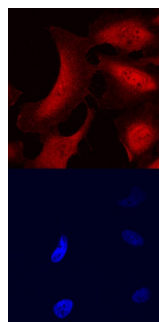
DATA

Western Blot



Detection of Human and Rat UBASH3B/STS1 by Western Blot. Western blot shows lysates of HCT-116 human colorectal carcinoma cell line, HEK293 human embryonic kidney cell line, MOLT-4 human acute lymphoblastic leukemia cell line, U-118-MG human glioblastoma/astrocytoma cell line, U2OS human osteosarcoma cell line, and Y3-Ag rat myeloid cell line. PVDF Membrane was probed with 2 µg/mL of Human/Rat UBASH3B/STS1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6696) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for UBASH3B/STS1 at approximately 72 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



UBASH3B/STS1 in HeLa Human Cell Line. UBASH3B/STS1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Sheep Anti-Human/Mouse/Rat UBASH3B/STS1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6696) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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. <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

UBASH3B (Ubiquitin-associated domain SH3 domain-containing protein B; also STS1 and TULA2) is a cytosolic 72-74 kDa member of the TULA (T cell ubiquitin ligand) family of proteins. It is widely expressed and appears to perform multiple functions. As a histidine phosphatase, it dephosphorylates Syk and Syk-related molecules, thus dampening signaling pathways. Via ubiquitin and SH3 binding domains, it binds to monoubiquitinated RTKs and Cbl, thereby increasing RTK activity by blocking its polyubiquitination and subsequent lysosomal degradation. There is also the potential for phosphodiesterase activity directed towards tRNA activity. Human UBASH3B is 649 amino acids (aa) in length. It contains one UBA domain (aa 39-75), a proline-rich ligand binding SH3 region (aa 257-316), and a PGM/histidine phosphatase domain (aa 386-598). UBASH3B is suggested to dimerize. Over aa 47-253, human and mouse UBASH3B are identical in amino acid sequence.