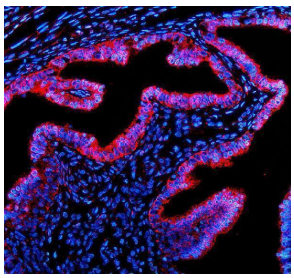
TTLL10 Antibody / Inactive polyglycylase TTLL10 Antibody (FY13549)

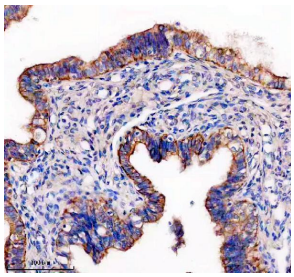
Catalog No.	Formulation	Size
FY13549	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

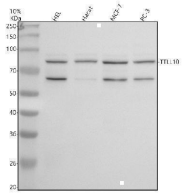
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q6ZVT0
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5 ug/ml
Limitations	The TTLL10 Antibody / Inactive polyglycylase TTLL10 Antibody is available for research use only.



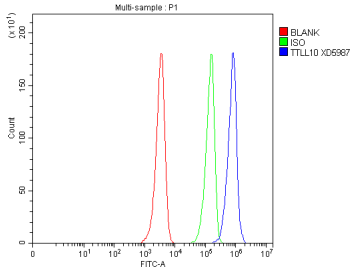
TTLL10 Antibody by IF in human fallopian tube. Immunofluorescence analysis using Inactive polyglycylase TTLL10 Antibody shows red staining along the folded epithelial lining of human fallopian tube tissue, with blue DAPI nuclear counterstaining outlining the mucosal architecture. The merged image demonstrates TTLL10-associated fluorescence concentrated in epithelial regions bordering the luminal spaces. Paraffin-embedded sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was incubated at 5 ug/mL overnight at 4oC, followed by a Cy3-conjugated anti-rabbit secondary antibody at 1:500.



TTLL10 Antibody by IHC in human fallopian tube. Immunohistochemistry of paraffin-embedded human fallopian tube using Inactive polyglycylase TTLL10 Antibody demonstrates brown staining along the epithelial lining of folded mucosal structures, with blue hematoxylin counterstaining identifying cell nuclei. The strongest immunoreactivity is associated with the epithelial compartment rather than the surrounding stromal tissue. Heat-mediated antigen retrieval was performed in EDTA buffer at pH 8.0, followed by blocking with 10% goat serum. Sections were incubated with 2 ug/mL primary antibody overnight at 4oC and developed using an HRP-conjugated secondary antibody and DAB chromogen.



TTLL10 Antibody by WB in human cell lines. Western blot analysis using Inactive polyglycylase TTLL10 Antibody detects a principal band near 75 kDa, consistent with the expected molecular weight of TTLL10. Lanes 1-4 contain HEL, HaCaT, MCF-7 and PC-3 whole-cell lysates, respectively. Reduced lysates containing 30 ug protein per lane were resolved by 10% SDS-PAGE and transferred to nitrocellulose. After blocking with 5% nonfat milk, membranes were incubated with primary antibody at 0.5 ug/mL overnight at 4oC. HRP-conjugated anti-rabbit secondary antibody and chemiluminescent substrate were used for detection. The target-associated band is visible across the four examined human cell lines.



TTLL10 Antibody by FACS in HEL cells. Flow cytometry analysis using Inactive polyglycylase TTLL10 Antibody shows a blue antibody-stained HEL cell fluorescence distribution shifted to higher intensity than the green isotype control and red unstained control. Cells were fixed with 4% paraformaldehyde, permeabilized and blocked with normal goat serum before incubation with 1 ug primary antibody per 1 x 10^6 cells for 30 minutes at 20oC. Fluorescent anti-rabbit secondary antibody was applied for 30 minutes. The overlay histogram documents intracellular TTLL10-associated staining compared with the matched control distributions.

Description

TTLL10 Antibody / Inactive polyglycylase TTLL10 Antibody detects TTLL10, a member of the TTLL family associated with post-translational modification of tubulin and related proteins. Several TTLL enzymes add glutamate or glycine residues to protein substrates, thereby influencing the biochemical properties of microtubules. TTLL10 is notable because the human protein is commonly described as an inactive polyglycylase. This designation distinguishes it from catalytically active family members and cautions against automatically assigning glycine-adding activity to the human protein. The evolutionary conservation of TTLL-related domains does not guarantee that all family members retain equivalent catalytic properties.

Microtubule glycylation is particularly relevant to the organization and function of cilia and flagella in organisms where active glycylating enzymes are present. Modifications of tubulin tails can influence interactions with microtubule-associated proteins and contribute to the stability of specialized microtubule structures. In other species, TTLL10-related enzymes have been investigated in this context. However, findings from an active ortholog should not be transferred uncritically to inactive human TTLL10. Its potential noncatalytic interactions, regulation, and physiological significance remain areas where the available evidence is more limited.

TTLL10 provides an example of how members of a protein family can diverge in catalytic capability while retaining recognizable sequence features. Understanding such differences is important when interpreting studies of tubulin modifications and cytoskeletal specialization. The biological relevance of an inactive enzyme-like protein may involve regulatory or structural properties, but these possibilities require direct confirmation. NSJ Bioreagents includes TTLL10 among its protein targets. A TTLL10 Antibody relates to the study of tubulin tyrosine ligase-like proteins, evolutionary changes in enzyme activity, and the regulation of specialized microtubule systems.

Explore related research targets in our Cell Biology Antibodies collection.

Application Notes

Investigators should determine the optimal dilution of the TTLL10 Antibody / Inactive polyglycylase TTLL10 Antibody empirically for their experimental conditions.

Immunogen

The TTLL10 Antibody was generated using e. coli-derived human TTLL10 recombinant protein (amino acids S205-P658).

Storage

The TTLL10 Antibody is stable for up to one month at 4oC after reconstitution. For longer-term storage, aliquot and store at -20oC for up to six months. Do not repeatedly freeze and thaw.

Alternate Names

TTLL10 antibody, Inactive polyglycylase TTLL10 antibody, tubulin tyrosine ligase like 10 antibody, Tubulin--tyrosine ligase-like protein 10 antibody, TTLL10 rabbit polyclonal antibody

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