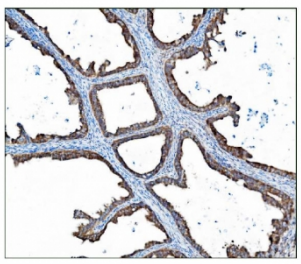
# TBC1D4 Antibody / AS160 (RQ6525)

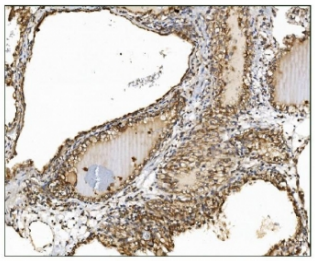
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ6525 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

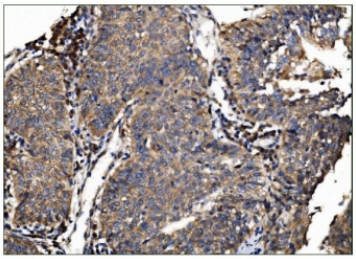
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | O60343 |
| **Localization** | Cytoplasmic |
| **Applications** | Western blot: 1-2ug/ml<br>Immunohistochemistry (FFPE): 2-5ug/ml<br>Immunofluorescence: 5ug/ml<br>Flow cytometry: 1-3ug/million cells<br>Direct ELISA: 0.1-0.5ug/ml |
| **Limitations** | This TBC1D4 antibody is available for research use only. |



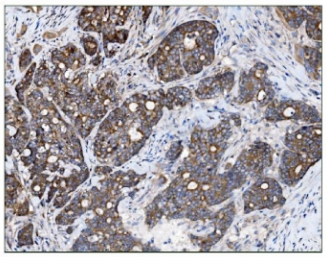
IHC staining of FFPE human ovarian cancer tissue with TBC1D4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



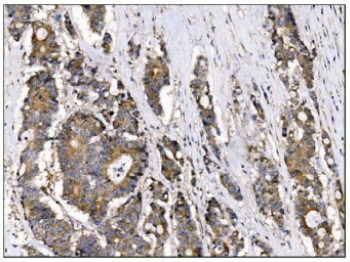
IHC staining of FFPE human renal clear cell carcinoma tissue with TBC1D4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



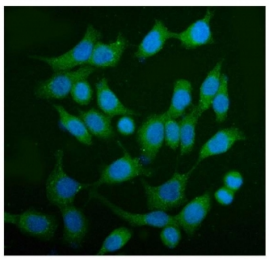
IHC staining of FFPE human lung cancer tissue with TBC1D4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



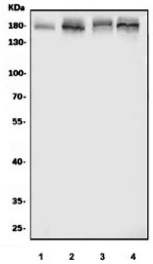
IHC staining of FFPE human gallbladder adenocarcinoma tissue with TBC1D4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



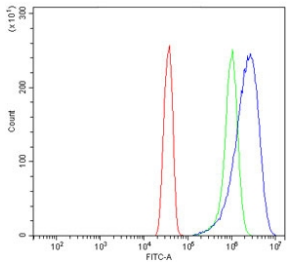
IHC staining of FFPE human colonic adenocarcinoma tissue with TBC1D4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Immunofluorescent staining of FFPE human Caco-2 cells with TBC1D4 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.




Western blot testing of human 1) Caco-2, 2) HeLa, 3) K562 and 4) HepG2 cell lysate with TBC1D4 antibody. Predicted molecular weight ~147 kDa but routinely observed at 147-160 kDa.




Flow cytometry testing of human HeLa cells with TBC1D4 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= TBC1D4 antibody.

## Description

AS160 (Akt substrate of 160 kDa), which was originally known as TBC1 domain family member 4 (TBC1D4), is a Rab GTPase-activating protein that in humans is encoded by the TBC1D4 gene. This gene is a member of the Tre-2/BUB2/CDC16 domain family. This protein is thought to play an important role in glucose homeostasis by regulating the insulin-dependent trafficking of the glucose transporter 4 (GLUT4), important for removing glucose from the bloodstream into skeletal muscle and fat tissues. Reduced expression of this gene results in an increase in GLUT4 levels at the plasma membrane, suggesting that this protein is important in intracellular retention of GLUT4 under basal conditions. When exposed to insulin, this protein is phosphorylated, dissociates from GLUT4 vesicles, resulting in increased GLUT4 at the cell surface, and enhanced glucose transport. Phosphorylation of this protein by AKT is required for proper translocation of GLUT4 to the cell surface. Individuals homozygous for a mutation in this gene are at higher risk for type 2 diabetes and have higher levels of circulating glucose and insulin levels after glucose ingestion.

## Application Notes

Optimal dilution of the TBC1D4 antibody should be determined by the researcher.

## Immunogen

An E. coli-derived human protein (amino acids K1118-P1298) was used as the immunogen for the TBC1D4 antibody.

## Storage

After reconstitution, the TBC1D4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Ordering: Phone: 858.663.9055 | Fax: 1.267.821.0800 | Email: info@nsjbio.com
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