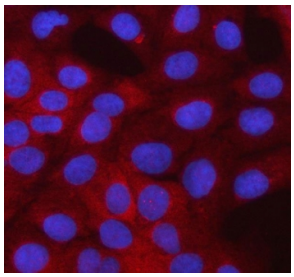
SMTNL2 Antibody / Smoothelin-like protein 2 (RQ8720)

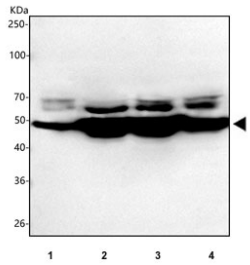
Catalog No.	Formulation	Size
RQ8720	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

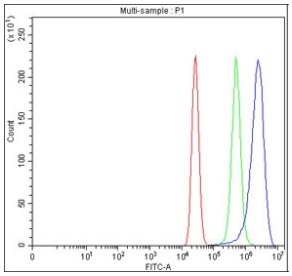
Availability	1-3 days
Species Reactivity	Human
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q2TAL5
Localization	Cytoplasm
Applications	Western Blot : 1-2ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This SMTNL2 antibody is available for research use only.



Immunofluorescent staining of FFPE human U-2 OS cells with SMTNL2 antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of human 1) COLO-320, 2) MCF7, 3) Caco-2 and 4) HepG2 cell lysate with SMTNL2 antibody. Predicted molecular weight ~50 kDa.



Flow cytometry testing of fixed and permeabilized human MCF7 cells with SMTNL2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= SMTNL2 antibody.

Description

The cytoskeletal protein smoothelin is highly conserved among vertebrates and is expressed exclusively by contractile smooth muscle cells where it localizes to the filament network. Smoothelin associates with Actin stress fibers but does not interact with Desmin. SMTNL2 (smoothelin-like 2), also known as FLJ42461, MGC131847 or MGC138382, is a 461 amino acid protein belonging to the smoothelin family. Containing a single CH (calponin-homology) domain, SMTNL2 is considered an Actin binding protein. SMTNL2 exists as two isoforms produced by alternative splicing events and is encoded by a gene mapping to human chromosome 17. Human chromosome 17 comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

Application Notes

Optimal dilution of the SMTNL2 antibody should be determined by the researcher.

Immunogen

An E.coli-derived human recombinant protein (amino acids M1-K440) was used as the immunogen for the SMTNL2 antibody.

Storage

After reconstitution, the SMTNL2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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