

Product datasheet for **TA319298**

ROBO1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	ELISA: 1:30,000 - 1:160,000, WB: 1:500 - 1:3,000, IHC: 2 ug/ml to 10 ug/ml, IF: User Optimized
Reactivity:	Human, Mouse, Rat, Dog
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	This affinity-purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 1632-1644 of Human ROBO-1.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	roundabout guidance receptor 1
Database Link:	NP_001139317 Entrez Gene 19876 Mouse Entrez Gene 58946 Rat Entrez Gene 487690 Dog Entrez Gene 6091 Human Q9Y6N7
Synonyms:	DUTT1; SAX3



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Note: ROBO-1 (also called Roundabout homolog 1 precursor and Deleted in U twenty twenty (DUTT)) functions as a receptor for SLIT1 and SLIT2. The SLIT proteins are thought to act as a molecular guidance cue in cellular migration, including axonal navigation at the ventral midline of the neural tube and projection of axons to different regions during neuronal development. In axon growth cones, the silencing of the attractive effect of NTN1 by SLIT2 may require the formation of a ROBO1-DCC complex. ROBO-1 may also be required for lung development. ROBO-1 is a type I membrane protein. ROBO-1 is a widely expressed protein with the exception of the kidney. Defects in ROBO1 may be a cause of breast and lung cancer. ROBO-1 maps within a region of overlapping homozygous deletions characterized in both small cell lung cancer cell lines (SCLC) and in a breast cancer cell line. Multiple splice variants have been identified for this protein.

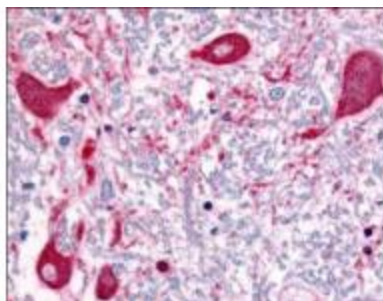
Protein Families: Druggable Genome

Protein Pathways: Axon guidance

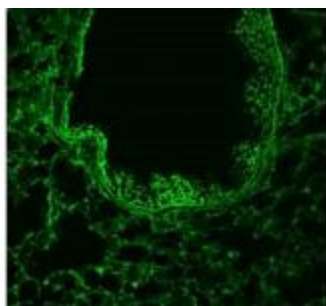
Product images:



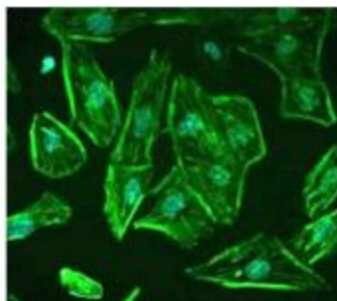
WB using Anti-ROBO-1 antibody shows detection of a band at ~181 kDa corresponding to ROBO-1 present in mouse brain lysate (arrowhead). Approximately 35 ug of lysate was separated by 4-8% SDS-PAGE and transferred onto nitrocellulose. After blocking the membrane was probed with the primary antibody diluted to 1:1,000. Reaction occurred 2h at RT followed by washes and reaction with a 1:10,000 dilution of IRDye™800 conjugated Gt-a-Rabbit IgG [H&L] MX for 45 min at room temperature.



Affinity Purified anti-ROBO1 antibody was used at a concentration of 5 ug/ml to detect ROBO1 in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows staining of human brain tissue. Tissue was formalin-fixed and paraffin embedded. Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.



1/50 staining mouse lung tissue sections (adult, frozen 100 μ m wholemount sections) by IHC-Fr. The tissue was paraformaldehyde fixed and permeabilized with triton x-100 before incubation with the antibody for 16 hours at 4°C.



Staining of ROBO1 in undifferentiated, immortalized human podocytes by ICC/ IF. Cells were fixed with 2% paraformaldehyde and 4% sucrose at RT for 10 minutes. The cells were then washed once with PBS, permeabilized with 0.3% Triton X-100 for 10 minutes and incubated with blocking solution (2% FCS, 2% BSA, 0.2% fish gelatin) for 30 minutes, before further incubation with primary Ab for 1 hour. An Alexa Fluor 488 goat anti-rabbit IgG secondary antibody was used at 1/200.