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PTK7 Antibody

Catalog # ASC10569

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q13308
Other Accession	AAH71557, 47938093
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	118392
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PTK7 antibody can be used for detection of PTK7 by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	5754
Other Names	Inactive tyrosine-protein kinase 7, Colon carcinoma kinase 4, CCK-4, Protein-tyrosine kinase 7, Pseudo tyrosine kinase receptor 7, Tyrosine-protein kinase-like 7, PTK7, CCK4
Target/Specificity	PTK7;
Reconstitution & Storage	PTK7 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	PTK7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PTK7
Synonyms	CCK4
Function	Inactive tyrosine kinase involved in Wnt signaling pathway. Component of both the non-canonical (also known as the Wnt/planar cell polarity signaling) and the canonical Wnt signaling pathway. Functions in cell adhesion, cell migration, cell polarity, proliferation, actin cytoskeleton reorganization and apoptosis. Has a role in embryogenesis, epithelial tissue organization and angiogenesis.

Cellular Location	Membrane; Single- pass type I membrane protein. Cell junction. Note=Colocalizes with MMP14 at cell junctions. Also localizes at the leading edge of migrating cells
Tissue Location	Highly expressed in lung, liver, pancreas, kidney, placenta and melanocytes. Weakly expressed in thyroid gland, ovary, brain, heart and skeletal muscle. Also expressed in erythroleukemia cells. But not expressed in colon

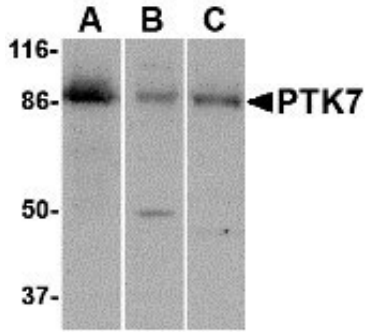
Background

PTK7 Antibody: Protein-tyrosine kinases (PTKs) play important roles in regulating cell proliferation and differentiation during development. One member of the PTK family, PTK7, has been suggested to regulate the planar cell polarity (PCP) pathway in vertebrates and may play a role in neural convergent extension and neural tube closure. PTK7 has also been implicated in the development of cancer. Loss of PTK7 expression was seen in several melanoma cell lines and biopsies. Conversely, high-throughput analysis of acute myeloid leukemia samples showed an increased level of PTK7 expression compared to normal bone marrow and purified CD34+ cells. Multiple isoforms of PTK7 are known to exist.

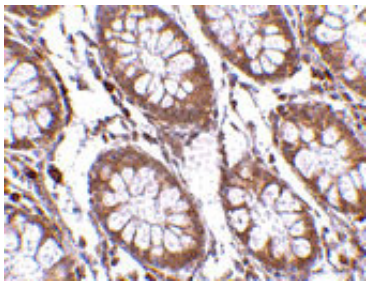
References

Park SK, Lee HS and Lee ST. Characterization of the human full-length PTK7 cDNA encoding a receptor protein kinase-like molecule closely related to chick KLG. J. Biochem.1996; 119:235-9.
Lu X, Borchers AG, Jolicoeur C, et al. PTK7/CCK-4 is a novel regulator of planar cell polarity in vertebrates. Nature2004; 430:93-8.
Easty DJ, Mitchell PJ, Patel K, et al. Loss of expression of receptor tyrosine kinase family genes PTK7 and SEK in metastatic melanoma. Int. J. Cancer1997; 1061-5.
Muller-Tidow C, Schwable J, Steffen B, et al. High-throughput analysis of genome-wide receptor tyrosine kinase expression in human cancers identifies potential novel drug targets. Clin. Cancer Res.2004; 10:1241-9.

Images

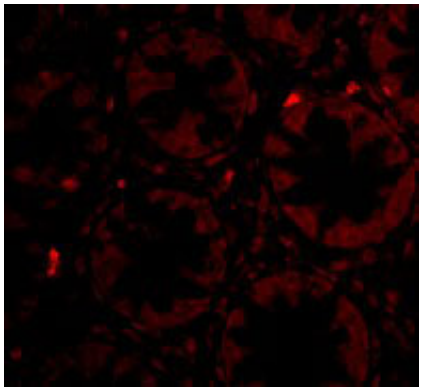


Western blot analysis of PTK7 in (A) human colon, (B) mouse kidney and (C) rat liver tissue lysate with PTK7 antibody at 1 µg/mL.



Immunohistochemistry of PTK7 in human colon tissue with PTK7 antibody at 2.5 µg/mL.

Immunofluorescence of PTK7 in Human Colon cells with PTK7 antibody at 20 µg/mL.



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