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TEM2 Antibody

Catalog # ASC10598

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q96D21
Other Accession	Q96D21, 21362868
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	30366
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TEM2 antibody can be used for detection of TEM2 by Western blot at 1 - 2 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	23551
Other Names	GTP-binding protein Rhes, Ras homolog enriched in striatum, Tumor endothelial marker 2, RASD2, TEM2
Target/Specificity	RASD2; TEM2 antibody may cross-react with the closely related protein RASD1.
Reconstitution & Storage	TEM2 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	TEM2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RASD2
Synonyms	TEM2
Function	GTPase signaling protein that binds to and hydrolyzes GTP. Regulates signaling pathways involving G-proteins-coupled receptor and heterotrimeric proteins such as GNB1, GNB2 and GNB3. May be involved in selected striatal competencies, mainly locomotor activity and motor coordination.
Cellular Location	Cell membrane; Lipid-anchor

Tissue Location	Pancreatic endocrine cells (islets of Langerhans).

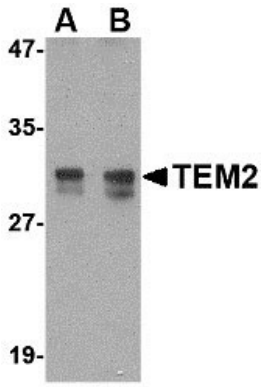
Background

TEM2 Antibody: Rhes, also known as tumor endothelial marker 2 (TEM2), is a small GTP-binding protein that is predominantly expressed in the striatal region of the brain. This protein belongs to the RASD subfamily of Ras-related GTP-binding protein superfamily and is thought to play a role in the normal development and function of the brain as mice lacking this gene showed increased anxiety levels and motor coordination deficits. Rhes was identified as TEM2 through analysis of genes whose expression was upregulated in tumor endothelium. Tumor endothelial markers are significantly up-regulated during angiogenesis and neoangiogenesis that are crucial for the growth of solid tumors. TEMs localized on the cell surface and conserved across species are of particular interest for future development of anti-angiogenic therapies.

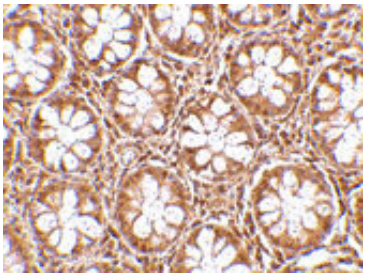
References

Vargiu P, Morte B, Manzano J, et al. Thyroid hormone regulation of rhes, a novel RAS homolog gene expressed in the striatum. Brain Res. Mol. Brain Res.2001; 94:1-8.
Spano D, Branchi I, Rosica A, et al. Rhes is involved in striatal function. Mol. Cell. Biol.2004; 24:5788-96.
Carson-Walter EB, Watkins DN, Nanda A, et al. Cell surface tumor endothelial markers are conserved in mice and humans. Cancer Res.2001; 61:6649-55.
Yamamoto Y, Irie K, Nanda A, et al. Direct binding of the human homologue of the Drosophila disc large tumor suppressor gene to seven-pass transmembrane proteins, tumor endothelial marker 5 (TEM5), and a novel TEM5-like protein. Oncogene2004; 23:3889-97.

Images



Western blot analysis of TEM2 in rat colon tissue lysate with TEM2 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of TEM2 in human colon tissue with TEM2 antibody at 2.5 µg/mL.

Immunofluorescence of TEM2 in Human Colon cells with TEM2 antibody at 20 µg/mL.

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