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Trophinin Antibody

Catalog # ASC11944

Product Information

Application	WB, IHC, E
Primary Accession	Q12816
Other Accession	NP_001034794, 89276766
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	143716
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Trophinin antibody can be used for detection of Trophinin by Western blot at 1 - 2 □g/ml. Antibody can also be used for immunohistochemistry at 10 □g/ml.

Additional Information

Gene ID	7216
Other Names	Trophinin, MAGE-D3 antigen, TRO, KIAA1114, MAGED3
Target/Specificity	TRO; Trophinin antibody is human, mouse and rat reactive. Multiple isoforms of Trophinin are known to exist.
Reconstitution & Storage	Trophinin antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	Trophinin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TRO
Synonyms	KIAA1114, MAGED3
Function	Could be involved with bystin and tastin in a cell adhesion molecule complex that mediates an initial attachment of the blastocyst to uterine epithelial cells at the time of the embryo implantation. Directly responsible for homophilic cell adhesion.
Tissue Location	Strong expression at implantation sites. Found in the placenta from the sixth week of pregnancy. Was localized in the cytoplasm of the syncytiotrophoblast in the chorionic villi and in endometrial decidual cells at the uteroplacental interface. After week 10, the level decreased and then disappeared from placental villi. Also found in macrophages

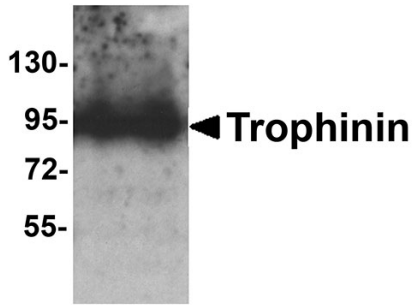
Background

Trophinin, also known as TRO or MAGED3, is an apical cell adhesion molecule that is implicated in the initial attachment during the process of embryo implantation and functions by mediating cell adhesion between trophoblastic and endometrial epithelial cells (1,2). Trophinin is a membrane protein expressed in chorionic villi trophoblasts and in maternal endometrial epithelial cells in an implantation-dependent manner and interacts with Bystin and Tastin, facilitating cell adhesion and embryo implantation (3,4). The induction of Trophinin expression may be a useful method for improving implantation rates and can be a potential diagnostic factor and biomarker for human cancer (4,5).

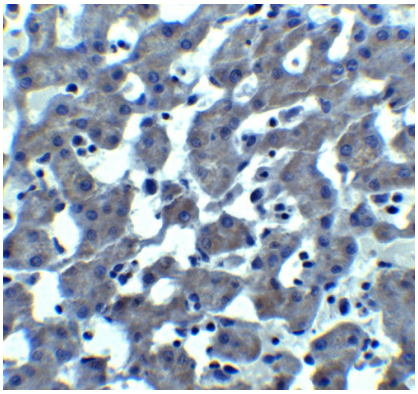
References

Fukuda MN, Sato T, Nakayama J, et al. Trophinin and tastin, a novel cell adhesion molecule complex with potential involvement in embryo implantation. Genes Dev. 1995; 9:1199-210.
Ma L, Yin M, Wu X, et al. Expression of trophinin and bystin identifies distinct cell types in the germinal zones of adult rat brain. Eur. J. Neurosci. 2006; 23:2265-76.
Tamura N, Sugihara K, Akama TO, et al. Trophinin-mediated cell adhesion induces apoptosis of human endometrial epithelial cells through PKC-d. Cell Cycle 2011; 10:135-43.
Chen KY, Lee YC, Lai JM, et al. Identification of trophinin as an enhancer for cell invasion and a prognostic factor for early stage lung cancer. Eur. J. Cancer. 2007; 43:782-90.

Images



Western blot analysis of Trophinin in rat liver tissue lysate with Trophinin antibody at 1 µg/ml.



Immunohistochemistry of TROPHININ in mouse liver tissue with TROPHININ antibody at 10 µg/ml.